

## Nampa WWTP Phase II Upgrades

### Design Review Committee Meeting #24 Summary

*Notes intended to supplement presentation slide content attached*

**Thursday, March 9, 2023 | 11:30 AM – 1:30 PM**

City Hall, City Council Chambers, 411 3<sup>rd</sup> St S, Nampa



#### Meeting Objectives:

- Provide updates on multiple projects
- Receive comments

### DRC Recommendations to Staff and Action Items

- Bid Alternates DRC Recommendations to Staff
  - Site Demolition:
    - Remove from Alternates (-\$1,957,214 cost savings)
    - Add to CIP for future
    - Present to City Council for authorization
  - Fan Rotary Press:
    - Double check that removing this from the Group F Jacobs contract will not impact Jacobs final performance requirements (per Councilman Haverfield)
    - If it does not impact performance requirements, remove the Centrifuge item from the Alternates and conduct a separate design, bid build project with Keller and Associates as the design engineers.
    - Re-evaluate replacing Centrifuge with Fan Rotary Press using new flow/load projections in Facility Plan amendment
    - Present to City Council for authorization (to remove from Alternates)
    - Present new Task Order with Keller and Associates for Fan Rotary Press to Council for authorization
  - Stairway and Door
    - Proceed with construction as a Bid Alternate
    - Present to City Council for authorization
  - Outfall, Landscape, Renaming Package
    - Proceed with design and construction within \$400,000 as a Bid Alternate
    - Present to City Council for authorization
  - Centrate Tank
    - Re-evaluate need as part of the Fan Rotary Press -Facility Plan amendment study.
    - Most likely this will be removed from the Alternates (-\$727,043 cost savings)
    - Present to City Council for authorization
  - Paving
    - Return to DRC when design and final estimates are complete

## Bid Alternates – Request DRC Recommendations

Item	Current Proposal	DRC Action Needed	Original Estimate	Revised Estimate	Balance
Additional Demo	Remove from Alternates	Recommendation Needed	\$ 1,957,214	\$ -	\$ 1,957,214
Centrifuge (Fan Rotary Press)	Replace Centrifuge w Fan Rotary Press. Will not be a bid alternate. Funded separately	Recommendation Needed	\$ 1,364,290	\$ 1,500,000	\$ (135,710)
Stairway and Door	No Change	Recommendation Needed	\$ 25,096	\$ 53,131	\$ (28,035)
Outfall, Landscape, Renaming Package	Added	Recommendation Needed	\$ -	\$ 400,000	\$ (400,000)
Centrate Tank	Hold-May Be Removed from Alternates	No Action Needed-Future	\$ 727,043	\$ -	\$ 727,043
Paving and Grading	No Change	No Action Needed-Future	\$ 4,062,549	\$ 4,850,000	\$ (787,451)
Plant Training Tool	No Change	No Action Needed-Future	\$ 59,636	\$ 59,636	\$ -
<b>Total</b>			<b>\$ 8,195,828</b>	<b>\$ 6,862,767</b>	<b>\$ 1,333,061</b>

## DRC Alternates Recommendation

Request DRC recommendation to City Council to proceed with the following Bid alternate Items as stated:

Remove Site Demolition (-1,957,214)	\$	0
Proceed w Design & of Fan Rotary Press (not Alternate)	\$	1,500,000
Proceed w Design & Construction Door & Stairs	\$	53,131
Proceed w Design Landscape, Outfall, Signage Package	\$	400,000
<b>Total</b>	<b>\$</b>	<b>1,953,131</b>
 Future – Remove Centrate Tank , Paving, Training Tool	 \$	 4,909,636

- Procurement Delivery Method for Group G:
    - Prepare program financials and capital 5-year plan to determine funding and delivery strategy for upcoming projects
    - Staff to evaluate delivery options using Brown & Caldwell matrix
    - Return to next DRC with financial update and delivery recommendations
  - Industrial Reuse Water Line Concept Design
    - Move forward with Task Order Ardurra in an amount less than \$50,000
    - For the alignment, use existing easements as much as possible
    - Provide alignment update at future DRC
- Please send any potential agenda items for the next meeting to the project team
    - *Next Meeting: June 8, 2023*

## Design Review Committee Meeting #24 Summary

### Introductions and Agenda Review

- Jeff Barnes reviewed meeting objectives and agenda items
- The following attended the meeting:
  1. Mayor Debbie Kling, Nampa
  2. Rick Hogaboam, Nampa
  3. Darl Bruner, Nampa
  4. Randy Haverfield, Nampa
  5. Carol Kenfield
  6. Larry Olmstead
  7. Mark Hilty, Nampa
  8. Gregg Thompson, Jacobs
  9. Lamar Parker, Jacobs
  10. Matt Gregg, Brown & Caldwell
  11. Noah Nordhoff, Brown & Caldwell
  12. Tom Points, Nampa
  13. Jeff Barnes, Nampa
  14. Doug Racine, Nampa
  15. Nicole Fletcher, Nampa
  16. Heather Tafoya, Nampa
  17. Kaitlyn Scott, Nampa
  18. Andy Zimmerman, Nampa
  19. Shannon Johnson, Nampa
  20. Logan Branscum, Nampa
  21. Dave Gassel, Nampa
  22. Nathan Wright, Nampa
  23. Barry Garcia, Nampa
  24. Jonathan Rand, Nampa
  25. Lucas Arsenith, Nampa
  26. Rachel Larson, Nampa

### DRC #23 Action Items Follow Up

- Recycled Line Allowance
  - Approved
  - Granite construction
- Phyllis Canal Outfall Aesthetics
  - In Process

### WWTP Group F Phase II Updates

- Construction Update
  - Safety
    - 327,000 hrs: 0 incidents

- Work Days without incident: 279
  - Average workers on site: 115
- Timeline of project progress
  - 42% complete, \$76M invoice to date
  - Expect 170 people on site in month
  - Original schedule – better than expected
    - promoted this project – locked in good labor force
    - Worked with city to procure equipment
  - Goal - finish on time on budget or below – could be done a couple of months in advance
- East Facilities Progress
  - Blower building #2: 22% complete
  - Aeration Basin #4: 77% complete
    - This structure has passed visual test, internal leak isolated on existing pipe (Ewing)
- Central Facilities
  - Sludge Handling Facility: 44% Complete
  - RAS Pump Station: 37% Complete
  - Secondary Clarifier 4: 89% Complete
    - Overcome pipe shortages, kept progress going, chemical facility ahead of schedule
- West Facilities
  - Clean Water Facility: 41% Complete
    - B&C challenged Jacobs to keep project cost-effective
    - Combined filter feed pump station
    - Combined post aeration
    - Storage and pumping class A recycled, plant water, filter feed backwash
    - Collaborative delivery
    - UV light important
  - Future Outfall: 0% Complete
  - Filter Building: 54% Complete
  - Filter Support Bldg: 64% Complete
- Backup Power
  - Standby generators, all 3 installed – are in final dealings with ID Power to do tie-in connections
  - Electrical project – all areas of plant will be touched by electricians
    - Generators will provide power to the whole plant w/ existing generator
    - Opens the way for commissioning efforts
    - 800 kw of power -3 existing, installing 3; diesel, w/ reserve tank – 1500 gal + 1500 gal – runs plant for 3 days – mobile tanks and permanent tank
  - Procurement is on track even with supply chain issues
- Recycled line progress
  - DRC Recommended Option #1, 12/13/22
  - City Council Authorized #1, 1/17/23

- Granite Construction NTP 2/23
- PGF Risks
  - Private property easements and acquisitions with Fred Meyer and Office Depot -working on ROW, but aren't getting answers - Condemnation
    - No communication from owners, attorneys, lease holders; change of ownership may be cause
    - Has become an unexpected risk
  - Equipment delivery – released pipe in April
    - Last hurdle to avoid delay in schedule
    - Reviewing submittals
  - IPDES Draft Compliance Agreement Schedule – plan will work

### **WWTP Group F – Recycled Waterline Financial Alternates & Risk Update**

- Group F Contract Summary - open book price went to Council
  - \$832,000 saved on escalation
  - \$8.2 M alternate approved (paving, etc)
  - Need to start allocating funds
  - Stay under on alternates
  - \$3M in grant for compensation, cost savings on project, escalation cost savings
  - Estimates in contract but need to redo numbers
  - Comment: \$47K under funding
- Bid Alternate: Replace centrifuge with fan rotary press viable
  - Separate project to do rotary press – do water solids, crunching sludge out at slow pace will result in less maintenance (centrifuge uses a lot of energy, maintenance – lots \$\$ spent each year)
  - Either another centrate tank or rotary press – If rotary press replaces centrifuge, no additional centrate tank will be needed
  - Pilot was placed on site ran with our sludge had good results
  - Q: Cost differential in purchasing? Will cover
  - Outside of contract; Jacobs will not do
    - Q: Why?
    - Jacobs already has a lot to do at plant, and this would be a way to get another firm involved – Keller did design on dewatering
- Change to contract: outfall/landscape/renaming package
  - Q: Renaming?
  - Move away from WW – we don't waste water!
  - Need DRC recommendations
- Remove original demo from alternates = \$19M less
- Centrifuge replacement with fan rotary press = \$135K more
  - Currently spending \$70K/year on weekly maintenance + yearly services
  - Q: Is the Rotary Press a faster process?
    - Longer, slower, but saving money over time by using half horsepower; system can run at night (staff does not want to run centrifuge at night)
    - Centrifuge can get solids drier, but Timber Creek wants it a little wetter – gets us to % dry that we have had in past
  - Q: We won't have additional demo? Deferring funds to different projects

- Centrate Tank – may get rid of
- Paving and Grading
- Plant Training Tool – not ready to discuss
- DRC Alternates Recommendation
  - Remove site demo
  - Proceed with Rotary press (design & Construction not included in Jacobs)
  - Proceed with Door and Stairs Construction (Jacobs alternates)
  - Landscape, Outfall, Signage package (addition but still in scope of work)
  - Total \$1,953,131 (design & construction)
    - \$1.3M under budget – not asking for anything more at this point
    - Rotary Press Construction would occur after Jacobs is done
- Jacobs has to build a plant that also works; they will go into their startup, run it, measure it against what they were asked to achieve
- Concern to move to press, need to measure against criteria of project success
- Need go-ahead from DRC

### **Wastewater Facility Plan (Update)**

- Last time plan was updated - 2017
- Now coming back to check on assumptions because of changes since then: growth, updated COMPASS numbers, etc.
- Need to look 20 years out, make sure funded
  - Q: Is WW treated commensurate with growth?
  - Even though we are increasing population, households are getting more efficient
  - Condition Assessments: Headworks and Boilers
    - C: Public education is needed on what WW is for. Problems at headworks won't be fixed until problems upstream are fixed
    - "One Water" strategy is evolving – combine messages in outreach – permit requires public outreach
    - Implementing Stormwater and WW combined education, e.g. go into schools

### **Headworks, Clarifiers, Boilers**

- Headworks efficiency, corrosion, structural damage
  - Screw pumps corroded (picture shown comparing 2017-2023); running at 53% efficiency; cannot move enough water, and starts backing up into pumps
  - H2S health and safety concerns – corrosive gasses eating facility alive
  - Odor loggers installed to measure H2S; old equipment agitation releases H2S
  - Mid-Jan (one week) graph shows that when staff opens doors – temp/H2S rises simultaneously, but can't leave doors open this time of year because of risk of frozen pipes, etc.
  - Red line on graph is OSHA recommendation – 10 min limit of exposure in an 8-hour day
  - This causes staffing problems; staff must track exposure on incident report log sheet
  - Q: Where/how do employees monitor? Paperwork filled out; more gas meters and training for staff; new portable monitors are more comprehensive and give more data
  - Outside correlates with indoors – H2S levels are very high even on the exterior; odor control is continuing issue

- Staff has toured several plants - Meridian has closed tank & HVAC pumps internal air through filter system
- H2S is safety concern for employees – no data on exposure over time
  - Comment from WW staff member: Outreach is important, but would not want to take tours through headworks with the safety concerns
- Cost of headworks \$5M to do rehab, \$25M to do replacement (estimate is a couple years old); we have a \$25M placeholder
- Working through 5-year plan including headworks
  - Next meeting putting together 5-year plan
- Boilers
  - Boilers are old; running all 4 boilers at once
  - Risk is age of boiler – high-risk when operating with no redundancy
  - Obsolete parts, so needing to fabricate replacement parts; doors rusting causing CO2 issue
  - \$10M estimated for this project – will be in 5-year capital plan

**Recycled Line Alignment**

- Future Industrial line alignment
  - Stub in for recycled line to industries that are interested in using it
  - Timber Creek is handling biosolids, but could also use recycled water if they wanted
  - North industrial district – need to figure out where line would be located and the easement
  - Adura Consultants to complete an alignment study showing ROW
  - Easement and property acquisition required to extend line from Plant to North Industrial Area
  - Need to get in now while roads are being widened
- Is DRC ok with moving forward?
  - Comes out of consulting budget
  - Q: Easements separate?
  - No, but distance between different lines needs to be maintained
    - Will look at using existing path and easements of old line
    - Study will look at that

**Group G Procurement (Delivery) Methods – 3 models**

- 3 Upcoming Large Capital Needs
  1. Headworks
  2. Primary clarifier
  3. Boilers
- Procurement (delivery options)
  1. Design Bid Build
  2. Construction Manager General Contractor (CM/GC)
  3. Progressive Design Build

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- Design-Bid-Build
  - City selects Engineer; Engineer designs, plans, and assists City in bid evaluation
  - Construction awarded to lowest bidder

- Construction monitored by Engineer/CM
- Construction Manager, General Contractor (CM/GC)
  - City selects Engineer
  - City selects CM/GC; Get contractor on early at completion of 30% design
  - Things can't do – forced marriage with CM/GC, can't guarantee performance outcome
  - Owner (City) working with 2 contracts, design engineer and CM/GC – (different than design-build option)
  - Performance guarantee with Design-Build model
  - CM/GC – if contractor doesn't meet requirements, who solves?
  - Idaho requires lowest, most-qualified bid
- Progressive Design Build
  - Owner ↔ Design-Builder – collaborative with owner, productive having builder and designer working side-by-side
  - Where is funding coming from?
  - If we don't have enough money to finish but have enough for design
    - Can stop at any time with Prog Des build “off-ramp”
    - Engineer/contractor doing professional services pre-construction
    - Off-ramp is discretionary
  - Comments from Mayor:
    - difference of project – funding source affects which option is chosen
    - The way this was set up in 2017 lets us plan not only what dollars will be spent, but what will it be spent on
  - Jacobs on site right now – one option is an amendment to their contract
    - If we go with design-bid-build, could do an amendment to Jacobs' contract; could do work quickly because they are on site
  - Want bid to be fair, qualified selection
  - Need to know funding before decision on model

### **DRC Proposal**

- DRC to change to Water Advisory Committee (WAG) – more of a water resources group
  - Q: Will meetings be longer or held more often?
  - Mayor: committee needs to stay intact as is – a different look in future, could change name because it is no longer a design review, but don't want to include too much
  - Comment from Legal: Open meetings law – if committee is charged with making recommendations to council, meets open meeting law
- Recommendation committee to Council for Wastewater, Water/PI, Environmental Stormwater

### **Wrap Up**

- Next meeting June 8, 2023