DBWC Potential Strategy Brainstorming List

7/29/24

NOTE THAT THERE IS NO CONSENSUS ON THE IDEAS BELOW – CONCERNS ARE NOTED AS SUB-BULLETS UNDER EACH IDEA

Note that ideas should not be considered in a vacuum – each concept relates to and affects several others in various ways → in the Chapter 4.11 Integration and Chapter 5 Implementation pieces, individual strategies could be bundled together to provide benefits for multiple parties.

The strategy list below includes both those already in the latest Draft Chapter (dated June 25, 2024) and those introduced during June 7, 2024 Planning Team meeting). Listed concerns came from parking lot issues developed in April 2022, from the brainstorm session held during the June 7, 2024 Planning Team meeting, and from Planning Team written feedback in July 2024 (updated are color-coded in list below.

Color coded feedback:
Green = agricultural representative
Red = municipal representative
Blue = environmental representative

All potential strategies and concerns proposed for inclusion in Chapter 4:

- STRATEGY: District canal piping
    - *CONCERN: District-wide measurement and real time reporting (WW update)*
    - *CONCERN: Ability to match federal funds*
    - *CONCERN: Resistance from local residents*
    - *CONCERN: Pathway for moving water to NUID and permanently protecting water instream in the Upper Deschutes*
        - (Comment from COID): split season leasing for conserved water projects
        - (Comment from Jefferson County SWCD): allow split season with transfer/lease of saved water
        - (Comment from WW): conserved water – COID-NUID-Upper Deschutes pathway (with permanent protection of water instream)
            - *CONCERN (from WW): 100% water saved instream*
    - *CONCERN (from COID): orderly process for piping main canals before we can see the full operational benefits*
    - *CONCERN (from WW): public funding = 100% instream*
- STRATEGY: District lateral piping
    - *CONCERN: District-wide measurement and real time reporting (WW update)*
    - *CONCERN: Ability to match federal funds*
    - *CONCERN: Resistance from local residents*

- *CONCERN: Pathway for moving water to NUID and permanently protecting water in the Upper Deschutes after laterals are fully piped throughout the Districts (COID update)*
- *CONCERN (from WW): public funding = 100% instream*

- STRATEGY: Private lateral piping
  - *CONCERN: Administering and managing water that patrons might seek to share without causing harm to operations or water users (COID update)*
  - *CONCERN: District-wide measurement and real time reporting (WW update)*
  - *CONCERN: Private lateral incentive program*
  - *CONCERN: Ability to match federal funds*
  - *CONCERN (from COID): staffing support to Districts to manage private lateral projects*
  - *CONCERN (from WW): allowing patrons to transfer/lease without district approval*
- STRATEGY: On-farm efficiency improvements
  - *CONCERN: District authority*
  - *CONCERN: Landowner willingness to share water savings for alternative uses*
  - *CONCERN (from Jefferson County SWCD): few incentives for landowners in Upper Basin to make changes*
  - *CONCERN (from Jefferson County SWCD): infrastructure conversions can be very expensive; NRCS can cover only part of the costs with their programs. Many conversion projects are not eligible for OWEB funds.*
- STRATEGY (from WW): Irrigation efficiency standards (reflective of modern-day duty restrictions)
- STRATEGY (from WW and LWV): further defining/regulating against "waste"
- GROUP OF STRATEGIES: municipal conservation measures
  - MUNI CONSERVATION STRATEGY (from COCO): Municipal WMCP required conservation measure discussion
  - MUNI CONSERVATION STRATEGY (from COCO): voluntary conservation measures in various stages of development
  - MUNI CONSERVATION STRATEGY (from WW): mandatory tiered pricing
  - MUNI CONSERVATION STRATEGY (from WW): landscape restrictions
  - MUNI CONSERVATION STRATEGY (from WW): outdoor watering restrictions
  - MUNI CONSERVATION STRATEGY (from COCO): OSU Extension research & programs – State support for conservation programs such as integrating waterwise and firewise research and outreach, green landscape industry training, certification, and best practices research program, technology development and transfer program for waterwise landscapes.
    - *CONCERN (from COCO: conflict between waterwise and firewise landscaping prescriptions*
  - MUNI CONSERVATION STRATEGY (from COCO): State support for classes, materials for AWWA Efficiency Practitioner Certificate (or like) to the state; M-36 water audit training and support

Commented [AE1]: From COID: flow meters are installed for private lateral projects that are funded by ARPA

Commented [AE2]: From Jefferson County SWCD: a list of improvements to discuss.

1. Convert to more efficient water delivery system
2. Maintain sprinklers by repairing leaks, worn gaskets, etc.
3. Manage the infrastructure to get the most crop per drop, e.g. irrigation scheduling, soil moisture sensors, etc.
4. Build ponds to re-use irrigation water runoff
5. Improve soil health to reduce water use of crops

Commented [AE3]: From COID: Districts encourage all on-farm efficiency improvements. Landowners do not need to obtain authorization from Districts to implement system upgrades that result in conservation.

Commented [AE4]: From COID: Most patrons implement on-farm efficiency improvements to allow better crop coverage and expand crop variety. Over time, the benefit of these projects will be seen. Currently, sharing water savings from individual projects is difficult to implement.

Commented [AE5]: From COCO: don't know that these have any concerns, just listing out the big categories of conservation programs we'll be discussing.

Commented [AE6]: From COCO: don't know that there's really any concern here, it's just not something that's been done before

- MUNI CONSERVATION STRATEGY (from COCO): funding to expand rebate programs (e.g., Bend turf removal rebate program has been immediately very popular and quickly ran out of funding)
- MUNI CONSERVATION STRATEGY (from COCO): program effectiveness data tracking across multiple jurisdictions

- STRATEGY (from WW): investigate alternate crops
- GROUP OF STRATEGIES: Water banking
  - WATER BANK STRATEGY: Temporary water leasing
    - CONCERN: *Enabling policies to volumetrically move water between districts and the river (COID update)*
    - CONCERN: *Retain flexibility to use water in the future, if repurposing or using less at any given time*
  - WATER BANK STRATEGY: Duty reductions
    - *Partial-duty leases/transfers not currently authorized by OWRD*
    - *District measurement and tracking*
  - WATER BANK STRATEGY: Permanent water transfers
    - *CONCERN (from COID): CTWS Review of Transfers*
    - *CONCERN: District willingness to enable voluntary market-based reallocation from urbanizing lands*
    - *CONCERN: Financial implications*
    - *CONCERN (from WW): incentives for permanent transfers instream*
    - *CONCERN (from WW): transfer of carry water instream when transferring off water (whether instream or out-of-stream)*
  - WATER BANK STRATEGY: Groundwater mitigation program
    - *CONCERN (from COCO): 2029 sunset*
    - *CONCERN (from COCO): raising 200 cfs cap*
    - *CONCERN (from COCO): pathways to creating credits*
      - *Generating mitigation credits from winter flow*
      - *Generating mitigation credits from summer minimum flows*
      - *Generating mitigation credits from fallowing*
      - *Generating mitigation credits from combinations of the above*
      - *Relationship to water bank?*
  - Water bank ideas (from 6/27 meeting):
    - CONCERN: *Need to crosswalk water bank section with ongoing discussions*
    - CONCERN: *"Water bank" loaded term – leave it aside at this stage so as not to get hung up on terminology, but focus on underlying movement/transactions and coordination for those*
- STRATEGY (from COLW): volumetric pricing (could fall under duty reduction though it can be implemented without split rate/duty and applies to municipalities too)
- STRATEGY (from Jefferson County SWCD): put water rights lost to development instream in Upper Deschutes

Commented [AE7]: From COCO: Again, I don't know if there's much concern here, this is just one example of where state support would make a difference in timing/extent of rollout.

Commented [AE8]: From KP/WW: I had put duty reduction on the list originally as actually duty reduction and NOT as a pathway to partial transfers

Commented [AE9]: From COCO: these are not COCO's concerns, exactly, but I think that they are concerns other interests have raised. I think these things still need to be discussed in the plan so we'll need to get a consensus on how we characterize these concerns.

Commented [AE10]: From COCO: None of these things would require a water bank, but the bank could better facilitate the creation of mitigation credits through approaches that could also be used to move water elsewhere.

    - *CONCERN (from Jefferson County SWCD): Irrigation districts don't want to lose that water*
- STRATEGY: New/relocated surface storage – include opportunities for small bulge-type storage ponds (COID addition)
    - Addition to this section (from COID): flood control benefits of dams
    - *CONCERN (from ODEQ): aboveground storage is and will become increasingly difficult to get permitted as its impacts to water quality can be quite large. Restoration projects performing channel sinuosity, floodplain connectivity, etc. can often accomplish in-stream storage*
- STRATEGY: Aquifer recharge (section title Above & Below)
    - *CONCERN: In general, pulling from storage – overappropriated currently, would need to be above a certain cfs flow rate*
- STRATEGY: Natural storage enhancements (floodplains, forests, wetlands, snowpack)
- STRATEGY: Measurement (for instream flow and out-of-stream use)
- STRATEGY: Watershed and habitat restoration to improve/maintain ecological health
    - Addition to this section (from WW): channel restoration in Upper Deschutes
    - Addition to this section (from WW): adequate flows to wet wetlands (frogs)
    - Additions to this section (from Jefferson County SWCD): improve uplands by thinning conifers/junipers, controlling annual weeds, reseeding, and creating appropriate grazing plans
- GROUP OF STRATEGY: Regulation
    - REGULATION TO INCLUDE: Deschutes Basin HCP)
        - (Addition to this section from COID): include ID's commitment and involvement in the DBHCP. The DBHCP provides dedicated significant funding for habitat restoration efforts.
        - (Addition to this section from COID): include District's plan and priorities and highlight what has already been done in the DBHCP
    - REGULATION TO INCLUDE (from COID): CTWS Contributions to the Basin – PGE/CTWS FERC license conditions, investments around anadromous fish reintroduction, or benchmarks that the license holders have met
    - REGULATION TO INCLUDE (from COID): USBOR obligations and commitments
- STRATEGY: Fish passage barrier removal
- STRATEGY: Regional partnerships
- STRATEGY: Long-term maintenance of pipelines
- STRATEGY: Upgrading water and wastewater systems
- STRATEGY: Recycled or reclaimed water projects
    - *CONCERN (from COCO): DEQ/CWA limitations on water reuse*
    - *CONCERN (from WW): if for GW that requires mitigation, then the consumptive use requirements go up with recycled/reclaimed water (this should be part of the narrative)*
- STRATEGY: Graywater, rainwater capture, stormwater
    - *CONCERN (from COCO): cost to benefit concern in Deschutes Basin?*

Commented [AE11]: From WW: is anyone actually pushing for new storage? BSWG was all focused on moving

Commented [AE12]: From COID: Impacts of urbanizing agricultural ground

Commented [AE13]: From COID: include DBHCP benchmarks within chapter to increase transparency of how the districts are managing and operating storage. This will help paint a picture of what the basin will look like in 30 years

Commented [AE14]: Feedback from COCO: these sorts of measures wouldn't be able to generate water in the Deschutes, so there isn't much to discuss in this section. Reduce the description of things that have already been completed.

Commented [AE15]: From COCO: Bend is currently studying this

Commented [AE16]: From COCO: I think this section of the document should make the point that this is kind of a zero sum measure for the Deschutes. This isn't like the west side where the rivers can be at flood stage for 4 months of the year and capturing some of this water is expanding the pie.

- STRATEGY: Cloud seeding
- STRATEGY: ~~New instream water rights –~~ Minimum flows for fish/wildlife/water quality (WW suggested update – note that minimum flows are different from instream water rights)
- STRATEGY (from WW): strategies to meet ecological flows (e.g. frog) beyond HCP
- STRATEGY: Prioritize streamflow restoration by reach
- GROUP OF STRATEGIES: Water quality
    - STRATEGY: Pollution reduction strategies
    - STRATEGY: Nonpoint source projects
    - STRATEGY: Source water projection
    - STRATEGY: Nutrients reduction
    - STRATEGY (from WW): temperature strategies
    - STRATEGY (from WW): flow/temperature gages
    - STRATEGY (from WW): protecting spring flows
- STRATEGY: Education/outreach
- STRATEGY (from WW): Groundwater dependent ecosystems/springs – data/research & protection
- GROUP OF STRATEGIES (from WW): Drought
    - STRATEGY (from WW): county drought declarations and ecosystems
    - STRATEGY (from WW): mandatory curtailment
    - STRATEGY (from WW): Efficiency standards (ag and muni)
    - STRATEGY (from WW): survival flows for fish and wildlife
- STRATEGY (from WW): address data gaps/research needs
- STRATEGY: NUID pumps from Lake Billy Chinook (Jefferson County SWCD update)
- STRATEGY (from Jefferson County SWCD): tiered pricing for irrigation district patrons
- STRATEGY: Public interest/environmental reviews on transfers
    - *CONCERN: No basis for this on reaches where there are no ISWRs/minimum flows*
    - *CONCERN (from COCO): timeline and process for public interest reviews – current timelines for public interest reviews as part of municipal extension process is years long*
- STRATEGY: Aquifer recharge for mitigation
    - *CONCERN: For mitigation – hard to track because it moves through aquifer, recharge isn't protectable with instream water right*
- GROUP OF STRATEGIES: Exempt wells
    - STRATEGY (from WW): modernize exempt well law to be more protective of resource and existing water right holders
    - STRATEGY (from WW and LWV): measurement and reporting of exempt wells
    - STRATEGY (from WW): explore alternatives to exempt wells
- Generating mitigation credits through water bank
- STRATEGY: In-conduit hydro
    - *CONCERN: Disincentive to meeting minimum flows if they aren't in place first*
- STRATEGY: Further defining/regulating "beneficial use"

Commented [AE17]: PT discuss - okay to remove this section?

Commented [AE18]: From WW: not sure why this is in here?

- STRATEGY (from WW): resolving outstanding instream water right protests (middle D and Crooked)
- STRATEGY (from COID): municipal infrastructure issues
- STRATEGY (from Yancy Lind): sliding scale cost for using irrigation water
- STRATEGY (from Yancy Lind): reallocating exiting water rights based on economic beneficial use
- STRATEGY (from LWV): form an independent basin-specific committee to assess and prioritize water needs to achieve identified goals for the Basin

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Attachment 1 – from Jim Powell:

Other approaches and elephants in the room

Recovery and utilization of reclaimed Duffy diversions

- Set a vision for Basin health and function. Defaulting almost 40% of the 82% water attributed to agricultural uses to OWRD and DBBC determined practices without suggesting better approaches is shortsighted and not in keeping with sustaining the integrity and regional planning for the whole Basin
- The original irrigation appropriation authorized under the Carey Act was set at 1.8 AF/A. At the behest of what is now COID and others through the then Circuit and Oregon Supreme Courts, the current 5.45 AF/A duty and additional transmission loss diversions "determined" by the State Engineer were decreed in 1933 by TJ Duffy. Address this "surplus" that was awarded based on Crane Prairie storage that was ultimately finished in 1939 and is now subject to the HCP.
- Allocate part of reclaimed water for a "Resiliency Pool" for all dependent on water – not determined by "Prior Appropriation" doctrine but by our regionally determined "best" need
- Use as an enhancement of the required provisions of HCP, but not the entirety of its requirements
- Staging water recovery accounting based on measured losses is acceptable for initial phases of district piping but ultimate recovery must include of all transmission loss water based on acreage irrigated, not just what is projected in SIPs or "measured" by FCA and Black Rock Consulting
- SIPs and NEPA filings for funding by districts promised all transmission loss water would be returned as the "ROI" of public monies – not just what is currently convenient for a district. Establish that sidebar.

Eliminate "paper water"

- Remove it from all transactions and "accounting" of water management

HCP

- This was created by the inertia of the districts' and OWRD status quo in water consumption and management assumptions despite warning signs of ecological and agricultural shortages over decades

- Solving this should not solely rely on publicly funded reclamation of transmission loss water but rather include a considerable contribution from improved intra-district conservation and water management

Restoration / Recharge

- Determine the contribution of retained storage in Wickiup and out-of-stream wetlands on aquifer recharge, especially during irrigation season. Most data suggests precipitation and surface water availability in the upper river system reaches are the most effective recharge. Currently, there is little data, only theory, supporting "regions of influence" for physical recharge or mitigation by avoidance of surface water use. We need better data
- Modify irrigation ramp up and ramp down of supplemental release flows, not just by date and percentage of "right", but including a consideration of habitat impact to diminish the initial seasonal bank and vegetation erosion and to enhance fish, amphibian and entomological cycles
- Avoid "recharge" based on using public water as private extraction mitigation. Require compelling evidence that artificial recharge promoted as mitigation actually offsets extraction impacts at the intended location and causes no harm to other users
- Utilize part of reclaimed/conserved water to restore near optimal flows in all river reaches – e.g. winter below Wickiup and summer below Bend – where HCP does not impact.

Drought Planning

- No anticipation or contingences appear so far in this planning document
- Establish provisions to share, prioritize and distribute the resource in times of scarcity – not just within the agricultural community but among ecological and municipal communities
- Establish a consensus based guide for priority of use that could flex with water availability and duration of diminished resources

Water Quality

- Seek solutions to prevent algal blooms in reservoirs or sluggish reaches
- Seek integration with land-use planning to preserve/enhance water quality
- Preserve the cold ground water resources enhancing river ecology
- Promote restoration of out-of-stream wetlands

Land Use Integration / Groundwater

- Enhance science based protection and mitigation
- Improve monitoring and data acquisition
- Integrate water availability as an essential component of EEIS and approvals
- Address issues created by population/development pollution along the Little Deschutes

River ecological and cultural priorities

- Protect instream water through tribal lands beyond Billy Chinook
- Set a use priority that acknowledges and enhances the ecological necessity of and cultural importance of water, river and riparian habitats/species
- Utilize part of reclaimed/conserved water to restore near optimal flows in all river reaches – e.g. winter below Wickiup and summer below Bend – where HCP does not impact.

Pilot Programs limited to this Basin

- While some participants in the DBWC look beyond the Basin with observations and concerns that should be considered, our focus is this Basin with its somewhat unique characteristics. We should not be afraid of asking for trials or pilots outside of current practices and statutes with appropriate sidebars in place to allow re-evaluation, reset or recovery if needed.
- Sub-basins may require different approaches to addresses their needs. Create the flexibility to accommodate that eventuality

Reliance on Economic Based Solutions

- Considerable progress has been made with "banks", mitigation trades, instream leasing, etc. while these were the only tools available. Now is the time to look at other models or permutations, perhaps in how the "banks" are designed and operated, that do not create the problem below.
- Monetization of water has not served to create orderly or equitable distribution of the resource. It creates an affordability problem or encourages bypassing community or aspiring farmer goals and values for monetary ones.

Recognize our tendency to diminish our cooperation and collaboration over time by adding some sidebars as consequences for not doing so

- This is just our nature – the sidebars would be our reminders of how we are interconnected to each other, culture and environment
- Efficiency goals could be a part of this for all uses – perhaps becoming standards later as practices evolve with piped/pressurized irrigation systems, land-use/growth and river ecology/wildlife populations improvements

Inadequate emphasis on the Buddhist concept of "mudita"

- Life is not a zero-sum game
- Recognition of interdependence – respect for life and habitat
- Antidote for envy of another's holdings – recognition of compassionate sharing –
- What could this plan ideally do - and what changes in structure, administration, rules, operations, relationships and information would be required to do so

Respectfully - JHP