

Central Iowa Regional Water Workgroup



Workshop #5

Valuation Concepts Part 2

November 16, 2017



Ideas from our Last Discussion

- ◆ **We ended our discussion last time with some important ideas.**

- ◆ **Asset transfer is one of the possible paths forward**
 - One option was transferring the capacity from McMullen and Saylorville (perhaps some others) to the regional entity
 - A second option involved transferring all water production assets to the regional entity
 - These ideas challenge the Guiding Principles, but we seemed to agree that exploring these ideas was important regardless

- ◆ **Expansion of the DMWW Board of Trustees was another idea**
 - We will also explore expansion of the board at one of our future workshops



Questions we heard

- ◆ **What about those who have not bought in to capacity?**
- ◆ **What about agencies with debt?**
- ◆ **How does asset ownership and governance align given the proposed asset transfer?**
- ◆ **What is the inventory of assets?**
- ◆ **Who is in the regional membership?**



What Interest?

- ◆ The interest we need to evaluate is the *capacity* in the existing water production. There are two varieties:
 - ***Subscribed capacity*** – this is capacity that is already used to provide service to existing ratepayers, either those attached to the owner's equity, or those attached to the contributed equity.
 - ***Reserve capacity*** – this is unused capacity.



Some Assumptions

	DMWW - All Other	PCAP*	Total
Des Moines Design Production Capacity (MGD) (source: BV Report, Table 4-12)	54	56	110
- Operational Capacity (informational) (source: operational capacity of 3 WTPs)	49	56	105
Current Demand Levels (source: Long-range plan, Table 4-23)	51	47	98

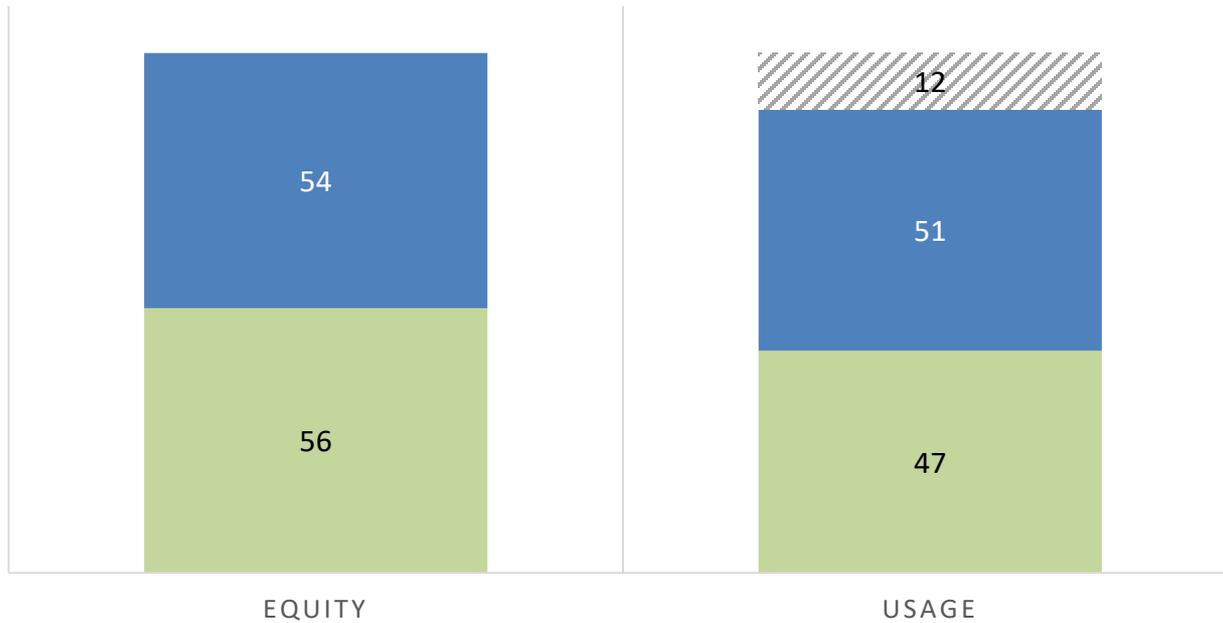
*Purchased Capacity



Where is the Reserve Capacity?

EQUITY AND DEMAND (BASED ON DESIGN CAPACITY IN MGD)

■ Purchased Cap ■ DMWW - All Other ▨ Reserve



Source – BV Report, Table 4-12

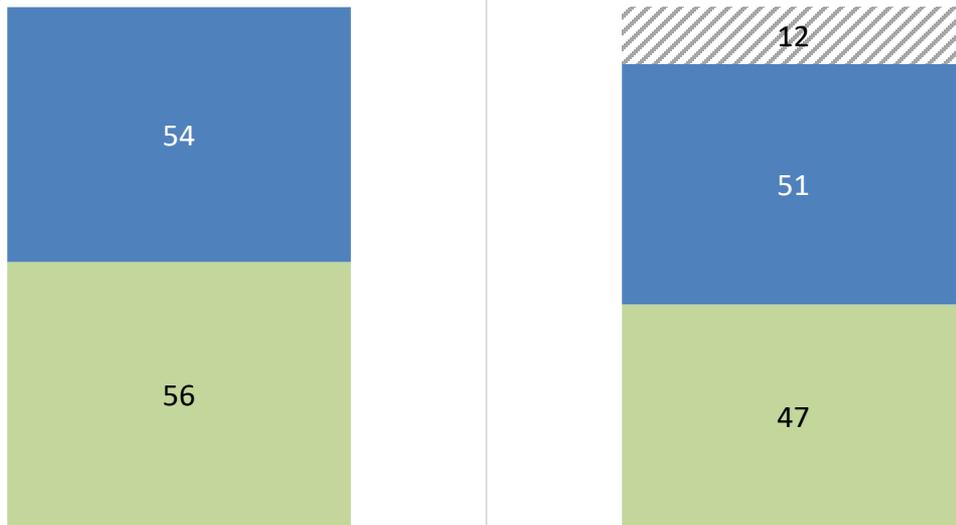
Source – Long-range Plan, Appendix A-1



Observations

EQUITY AND DEMAND (BASED ON DESIGN CAPACITY IN MGD)

■ Purchased Cap ■ DMWW - All Other ▨ Reserve



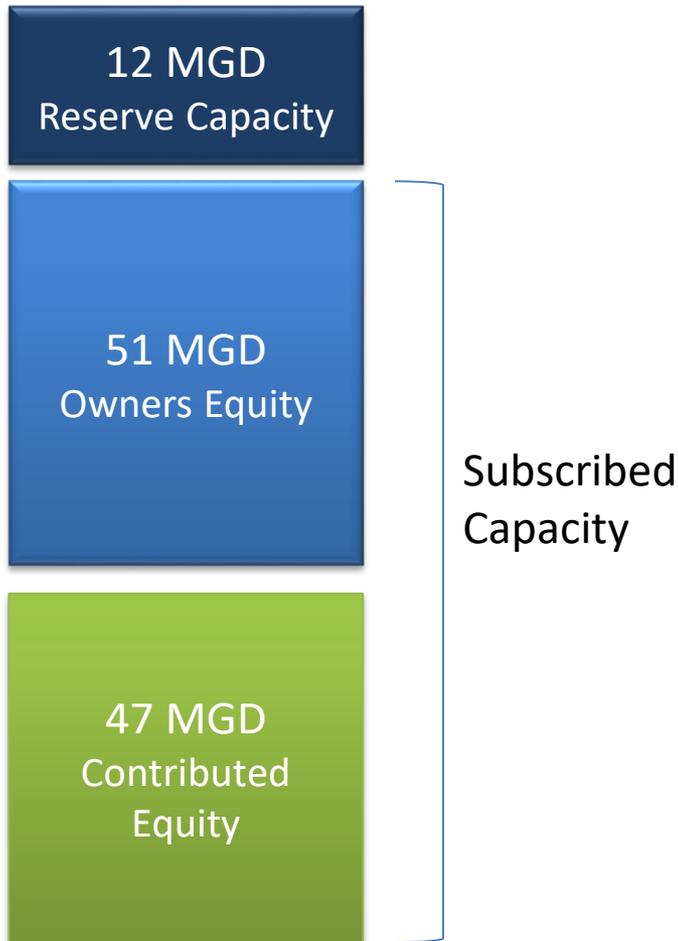
EQUITY

USAGE

- **12 MGD of Reserve Capacity**
- **PCAP has 9 MGD of reserve**
- **All Other reserve is 3 MGD**
 - Of 54 MGD...
 - Des Moines is 42 MGD
 - Wholesale is 6 MGD
 - Total Service is 3 MGD
 - Reserve remains at 3 MGD



What to do with Subscribed Capacity?



Suggested Approach:

- Contribute to regional entity as is
- At original cost net of accumulated depreciation
- Results in no impact to existing users (i.e. ratepayers)

Why?

Because this capacity is already being used, transferring it without revaluation locks in the costs and benefits and secures them as-is for existing customers



Revised Reserve Capacity

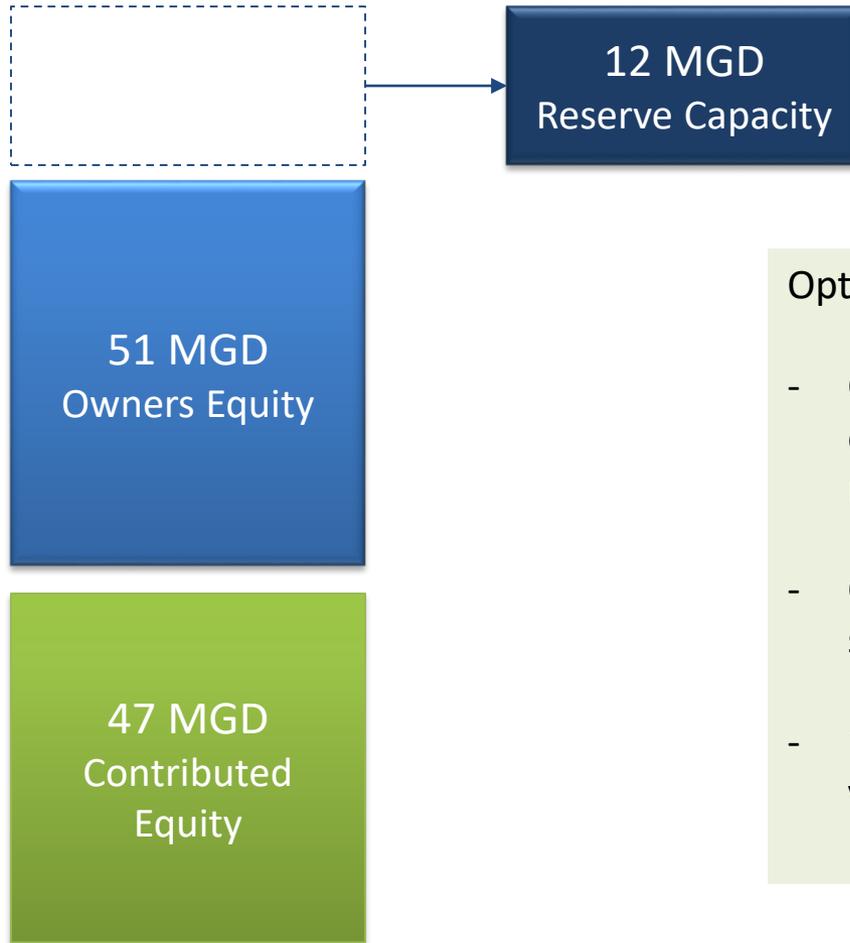
- ◆ **DMWW - All Other group disproportionately carries cost of reserve**
 - Absorbed, or “carried” by DMWW – All Other
 - Embedded in the rates
 - Other customers’ rates are higher in order to carry the reserve

example (source: 2016 DMWW Cost-of-Service)

	DMWW – All Other	Purchased Capacity	Total
Depreciation Recovery (\$ million)	\$11.0	\$4.0	\$15.0
Annual Demand (mil. Gal)	8,553	7,128	15,681
\$/thou. Gal.	\$1.28	\$0.56	



What to do with Reserve?



Options for:

- Contribute and allow region to subscribe the capacity; spreads capital cost recovery to entire region
- Contribute but reserve all or some of the 12MGD specifically to those with reserve capacity
- “Sell” the capacity and “buy it back” at marked-up value



Contribute - Unrestricted

Reserve capacity is contributed to the regional entity with no restrictions on how it is used, and the capital cost recovery is averaged across all demands in the region instead of non-PCAP customers only

What that might look like immediately:

\$15.0m / 15,681 MG = \$0.96 per 1,000 gal.

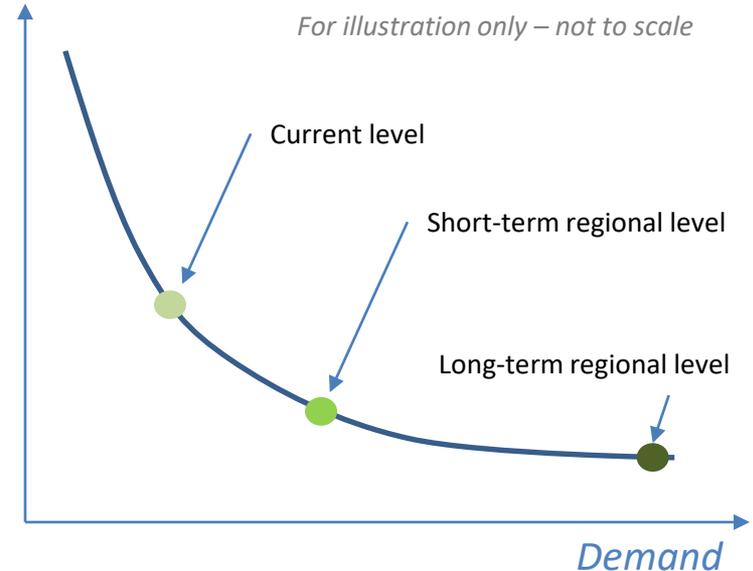
What that might look like at max subscription:

\$15.0m / 17,782 MG = \$0.84 per 1,000 gal.

vs. \$1.28 for DMWW All-Other customers

vs. \$0.56 for PCAP

Avg. \$/Unit



Increasing the scale results in lower avg. unit costs and decreases the risk of carrying reserves longer.



Contribute – Unrestricted Pros & Cons

Pros

- ◆ Reserve capacity is subscribed more quickly
- ◆ Removes the purchased capacity “limits” and related charges
- ◆ Avg. unit costs decrease for Des Moines customers (non-PCAP customers)
- ◆ Establishes the regional entity with assets to fulfill its obligations to serve
- ◆ Cost of curing operational capacity averaged across region

Cons

- ◆ Avg. unit costs for Purchased Capacity members would increase from present



Contribute - Restricted

Reserve capacity is contributed to the regional entity but some or all the reserve is restricted for the future use of those who currently own reserve (9MGD PCAP; 3MGD DMWW – All Other)

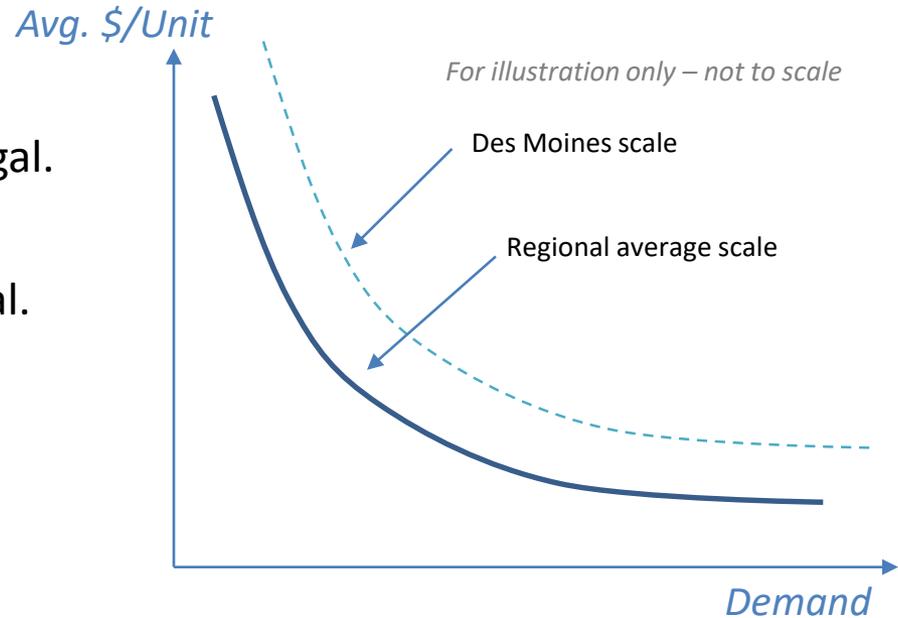
What that might look like immediately for DMWW All - Other:

$\$11.0\text{m} / 8,553 \text{ MG} = \underline{\$1.28}$ per 1,000 gal.

What that might look like immediately for PCAP:

$\$4.0\text{m} / 7,128 \text{ MG} = \underline{\$0.56}$ per 1,000 gal.

vs. $\$1.28$ for DMWW customers other than PCAP
vs. $\$0.56$ for PCAP



Des Moines would be able to control the remaining reserve, but does so with less scale, making avg. costs higher for non-PCAP customers.



Contribute – Restricted Pros & Cons

Pros

- ◆ Establishes the regional entity with assets
- ◆ Des Moines would have rights to least expensive capacity for growth up to 3 MGD
- ◆ PCAP would have rights up to 9 MGD

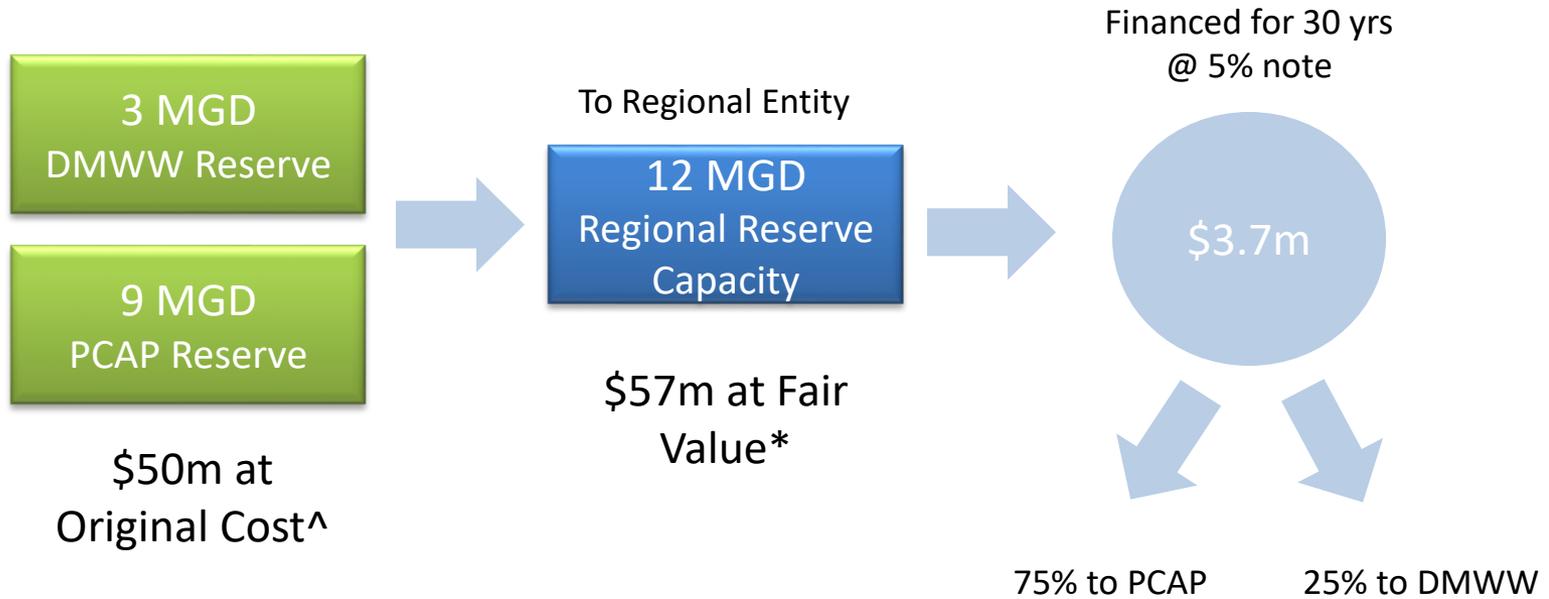
Cons

- ◆ Reserve capacity is subscribed more slowly
- ◆ Makes regional cost recovery framework more complex
- ◆ Cost of curing the operational capacity is not regionalized



Sell and Buy Back – How it Might Work

Reserve capacity is “sold” to the regional entity with the cost of the sale spread among all regional customers, but with specific benefit to reserve owners.



^ rough estimate based on BV Report using original cost figures for water production assets

* rough estimate based on reproduction cost adjusted for deterioration (depreciation) and curable obsolescence of approximately \$8m from review of improvement projects in the long-range plan



Sell and Buy Back

What that might look like immediately:

\$15m + \$3.7m / 15,681 MG = \$1.19 per 1,000 gal.

Possible additional credit for DMWW ratepayers:

\$0.9m / 8,553 MG = \$0.11 per 1,000 gal.

What that might look like at max subscription:

\$15m + \$3.7m / 17,782 MG = \$1.05 per 1,000 gal.

Possible additional credit for PCAP ratepayers*:

\$2.8m / 7,128 MG = \$0.39 per 1,000 gal.

vs. \$1.28 for DMWW customers other than PCAP

vs. \$0.56 for PCAP

**2.8 million would be distributed proportionately to those who are contributing reserve*



Sell and Buy Back – Pros & Cons

Pros

- ◆ Reserve capacity is subscribed more quickly
- ◆ Removes the purchased capacity “limits” and related charges
- ◆ Avg. unit costs decrease for Des Moines customers (non-PCAP customers)
- ◆ Establishes the regional entity with assets to fulfill its obligations to serve
- ◆ Cost of curing operational capacity averaged across region

Cons

- ◆ Rate for Purchased Capacity customers increases
- ◆ More complex
- ◆ Requires parties to agree on a value

Questions and Concerns



What about those who have not bought in to capacity?

- ◆ **Problem: There are wholesale customers who are not purchase capacity owners (e.g. Johnston)**
 - These customers currently pay full wholesale charge to DMWW
- ◆ **Two possible methods for addressing concern**
 - It is a matter for local governance (i.e. DMWW) because wholesale contract goes through that entity.
 - Regional rate differential.
 - Region can have differential rate just as DMWW has differential rate today
 - Optionally, these customers could buy-in to purchase capacity



What about agencies with debt?

- ◆ **Problem: Some agencies contributing equity to the system still are paying debt on that contribution.**

- ◆ **A couple of suggestions:**
 - Full credit for contributions post-transaction.
 - Each agency receives 100% credit for the capacity that is contributed to the region. Includes *all invested capital*.

 - Regional entity takes on debt.
 - Each agency receives credit but only for the equity portion of invested capital.
 - Debt service picked up in regional entity rates.



How does asset ownership and governance align given the proposed asset transfer?

- ◆ **Problem: We discovered in previous workshops that in order for the Regional Entity to have actual authority, it probably needs asset ownership**
- ◆ **With the proposed asset transfers:**
 - Establishes entity with ownership of existing assets. But, those who paid for the assets still retain equity positions (i.e. credit).
 - Means Regional Entity has its own balance sheet for assets, liabilities, and equity.
 - Which means it has authority to approve budgets and other necessary governance.
 - Which means the Regional Entity has clear authority to meet its obligations of service.



What is the inventory of assets?

- ◆ **Problem: Some belief that regional water production assets should include more of the suburban facilities.**

- ◆ **A suggest approach:**
 1. Take asset inventory that had been previously reviewed and circulate to General Managers.
 2. Ask GMs to describe technical criteria for including/not including given assets.
 3. Report results back to group at next workshop.



Who is in the regional membership?

- ◆ **Problem: We don't have clarity on "what the region is" because we don't know with certainty who the members might be**

- ◆ **A couple of suggestions:**
 - Assumption: everyone who is served by DMWW will continue to be served by the region.
 - That includes PCAP, Wholesale, Total Service, and DMWW retail
 - The Long Range Plan provided some polling where agencies indicated interest in participating.
 - We can use that list as an assumption for now
 - We could do our own polling.