

Joint Water Commission

Crystal · Golden Valley · New Hope

FUTURE WATER

A Presentation to the Three City Councils

June 2, 2004



JWC VISION FOR REGIONAL WATER SYSTEM

- **Develop and maintain multiple supplies**
- **Establish emergency interconnections with neighboring communities**
- **Keep costs low**
- **Provide secure, reliable water supply**
- **Provide softened, good-tasting water**
- **Promote wise use of scarce resources**



HOW WE CAME TO FACE A “FUTURE WATER” DECISION

- **JWC examined future water alternatives in 1997**
- **Alternatives to Mississippi focused on Prairie du Chien aquifer**
- **Study concluded that groundwater system would be feasible if Minneapolis rates increased by 130% -- now up 179%**
- **JWC began negotiating with Minneapolis in 2001**
- **Minneapolis proposed pricing involving 75% increase**
- **JWC and Minneapolis entered into two-year Memorandum of Understanding (MOU) in 2002**
- **JWC developed viable groundwater supply alternative**
- **MOU expired end of 2003**



NEGOTIATED AGREEMENT WITH MINNEAPOLIS

- **30-year term, scheduled pricing for five years**
- **2004 rate: \$1.75 per 1000 gallons (55% of “inside city” rate, or rate paid by Minneapolis residents)**
- **2005-08 Increases: 7.6%, 6.6%, 2.9%, 2.8%**
- **2008 rate: \$2.12 per 1000 gallons**
- **Purchase up to 21 million gallons per day**
- **15% surcharge if exceed 21 million gallons per day**
- **Five-year cost of service review in 2008**
- **Rates beyond 2008 indexed to “inside city” rate**
- **Five-year “bailout” provision with mediation**



NEGOTIATED AGREEMENT WITH MINNEAPOLIS

	<u>Negotiated</u>		<u>Existing</u>	
1998	\$	0.95		
1999		1.04	9.5%	
2000		1.08	3.8%	
2001		1.89	75.0%	
2002		2.07	9.5%	
2003		2.28	10.1%	\$ 2.28
2004		1.75	-29.4%	2.48 8.8%
2005		1.88	7.6%	2.67 7.6%
2006		2.01	6.6%	2.85 6.6%
2007		2.07	2.9%	2.93 2.9%
2008		2.12	2.8%	3.01 2.8%



NEGOTIATED AGREEMENT WITH MINNEAPOLIS (continued)

- **Can negotiate under similar terms for more water if needed and available**
- **JWC can supplement with other sources if Minneapolis Water Works (MWW) unable or unwilling to supply**
- **MWW agrees to meet state and federal regulations**
- **No discrimination on demand restrictions (MWW can't restrict JWC water usage unless its also restricting Minneapolis usage)**
- **JWC liable for energy surcharge if JWC contributes to cause for increased energy demand charge**
- **Lower rate determined by formula if extraordinary transfer from MMW Water Fund**
- **Joint planning and governance efforts related to alternate water supply capital improvement budgeting, etc**



NEGOTIATED AGREEMENT WITH MINNEAPOLIS

What are we paying for?

	Existing[1]	Negotiated
Plant Value Allocation	\$13,687,599	\$9,672,094
Return on Investment [2]	958,132	0
Depreciation	<u>418,370</u>	<u>348,652</u>
SUBTOTAL CAPITAL COSTS	\$1,376,502	\$348,652
Operations and Maintenance	\$4,922,464	\$4,102,178
Billing and Accounting	<u>1,740</u>	<u>1,450</u>
TOTAL COST OF SERVICE	<u>\$6,300,706</u>	<u>\$4,452,280</u>
Annual Purchase, Million Gallons	2,544.16	2,544.16
Cost per Thousand Gallons	\$2.48	\$1.75

[1] – 1997 Test Year. Existing rates are based on 27 mgd maximum allowable purchase.

[2] – Based on a 7 percent return on investment for Existing Rates. The negotiated pricing assume a 0 Percent Return on Investment.



NEGOTIATED AGREEMENT WITH MINNEAPOLIS

“Good Faith Efforts”

- **Written approval to supply customers outside JWC city limits**
- **Develop and maintain mutually acceptable delivery schedule emphasizing off-peak delivery**
- **Negotiate to increase maximum daily limit (if necessary)**
- **Implement reasonable water conservation measures**
- **Mediate differences prior to termination**
- **Conduct joint planning and governance efforts**



NEGOTIATED AGREEMENT WITH MINNEAPOLIS

Risks and Concerns

- **Lack of emergency supply or interconnection**
- **Overall source security and reliability**
- **Aging infrastructure**
- **Extraordinary transfers from Water Fund**
- **Five-year cost of service review**
- **15% rate surcharge above 21 million gallons per day**
- **Future surface water regulations**
- **Membrane costs and operations**



TAC FINDINGS OF TECHNICAL FEASIBILITY

Water Supply

- **Aquifer testing and groundwater modeling confirmed that sufficient water is available**
- **DNR Review Memorandum confirmed study results**
- **Minor localized or short-term impacts to existing wells can be mitigated**
- **Raw water quality well understood and treatable**
- **Adequate well drilling capability in metro area to complete well development within the project schedule**



TAC FINDINGS OF TECHNICAL FEASIBILITY

Water Quality

- **“Equal to or better” quality is achievable through lime softening**
- **Home softeners would NOT be required**
- **Iron and manganese would be removed, eliminating concerns associated with water quality and color**
- **Conventional filtration and disinfection with chloramines would also be provided**
- **No known groundwater contamination sites in wellfield areas**



TAC FINDINGS OF TECHNICAL FEASIBILITY

Distribution and Storage

- **All existing transmission and storage infrastructure would be fully utilized**
- **Storage reservoirs would be backfilled from treatment facility**
- **Raw water pipelines would be required (water from wells to treatment plant)**
- **Some additional finished water pipelines would be required (water from treatment plant to distribution system)**
- **Distribution and storage infrastructure is included in capital cost estimates**



TAC FINDINGS OF TECHNICAL FEASIBILITY

Reliability and Security

- **Multiple water storage reservoirs**
- **Dual-redundant water treatment facility**
- **Centrally located treatment facility**
- **Would pursue emergency interconnections with neighbors**



JWC RECOMMENDATION

Based on administrative, managerial, and economic considerations, the JWC recommends that the three city councils consider approval of the agreement with Minneapolis, as negotiated.



JWC RECOMMENDATION

Administrative Considerations

- **Existing business relationship with Minneapolis and infrastructure optimized for delivery and distribution of Minneapolis water**
- **Public works and water utilities departments organized and staffed to support this relationship**



JWC RECOMMENDATION

Managerial Considerations

- **Minneapolis partnership an important component of a long-term vision for regional water supply**
- **Integration of surface and groundwater sources will be a part of any regional water system that develops in the metro area**
- **JWC Governance organized around wholesale purchase / retail sales**
- **Staffing needs related to water supply and treatment**



JWC RECOMMENDATION

Economic Feasibility

The \$2.03 per thousand gallons cost of a groundwater system in 2008 is comprised of operations, maintenance, depreciation and equity.

Operations and Maintenance	\$ 0.95
Depreciation	\$ 0.56
Equity (Principal)	<u>\$ 0.52</u>
TOTAL 2008 COST	\$ 2.03
2008 MINNEAPOLIS COST	\$ 2.12

These costs are very close, considering the risks involved in developing a new system.



JWC RECOMMENDATION

Economic Feasibility

- **Difference between Minneapolis and a groundwater system is only \$264,000 in 2008. The JWC currently pays Minneapolis about \$7 million per year.**
- **Projected average annual difference from 2008-2015 would be \$340,000 considering current Minneapolis rate projections and capital plans.**
- **There is more than \$9 million in additional cost between now and 2008 to build a new system while continuing to buy Minneapolis water.**
- **Break-even would be in 2024, when bonds are paid off.**



JWC RECOMMENDATION

Economic Feasibility - Considerations

- **Beyond 2008, Minneapolis rate increases are uncertain. Current projections are for 1.75% per year from 2009 through 2015.**
- **Every \$100 million in improvements to Minneapolis' water system would increase Minneapolis' rates to the JWC by about \$0.35 per thousand gallons, or about \$1 million per year.**
- **If bond interest rates increase to 5.5%, annual cash savings from a groundwater system decrease to **\$100,000** or less. If bond interest rates increase to 6%, annual cash savings are reduced to **zero**.**
- **Capital cost overruns due to inflation or other factors would similarly reduce any potential savings.**



Next Steps



Each City Council is considering the JWC's recommendation. Please contact your City offices for information about when meetings will be held.

City of Crystal: 763-531-1160

City of Golden Valley: 763-593-8035

City of New Hope: 763-592-6766

