

City of Milwaukee

Legislative Reference Bureau – Fiscal Review Section

Analysis of Sale of Water to City of New Berlin

Prepared by Emma J. Stamps, Fiscal Analyst Senior

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Water Sale to the City of New Berlin

Historic Background:

In the 1960s and 1970s the City of New Berlin expressed interest in purchasing water from the City of Milwaukee to meet growing community needs. Rapid growth during the 1970s contributed to well levels dropping by 8 feet per year. A 1976 technical report by the United States Geodysic Survey and the Southeastern Wisconsin Regional Planning Commission predicted substantial well level decreases would continue through the year 2000 if New Berlin continued relying on wells. During this period, New Berlin increased the number of wells from 6 to 9 in an effort to meet water needs.

The Milwaukee Common Council studied and rejected a number of requests from New Berlin to purchase water from Milwaukee. Among the Council's concerns was the competition between City of Milwaukee and New Berlin for industrial development. Several reports confirmed that during the 1970s, 42 firms, or 28% of industries in New Berlin Industrial Park, moved out of Milwaukee to New Berlin, thereby significantly impacting Milwaukee industrial assessments and resulting property tax revenues. Also, New Berlin was experiencing significant population growth although New Berlin had virtually no low-moderate income housing compared to the City of Milwaukee. Since the City of New Berlin was noncommittal in increasing its low-moderate income housing, the City of Milwaukee Common Council discontinued negotiations for a purchase of water agreement.

City of New Berlin Overview:

Distribution of water from the Great Lakes is limited to consumption within the Great Lakes Basin, which is identified by the sub-continental divide. The eastern portion of the City of New Berlin, to approximately Moorland Rd., lies east of the sub continental divide, within the Lake Michigan Watershed. Located in eastern Waukesha County, a City of New Berlin decision to purchase water from Milwaukee Water Works could potentially attract industry from western Waukesha County, adversely impacting future industrial development in the County as consumers' preference shift from ground to Lake Michigan water source, subsequently contributing to growth in New Berlin's eastern portion.

The City of New Berlin does not have any current water service agreement with the City of Milwaukee. The City of New Berlin has a water service agreement with the Town of Brookfield for Brookfield to provide water service to a small area in the northwest corner of the city.

From 1990 to 2000, the number of metered water customers increased by 2,298. In 2000, the City of New Berlin water system grew by an addition of 1.1 miles of main, 19 hydrants, 603 new meters and 42 new water customers. The Utility installed 299 additional meters in developments in New Berlin's southeastern portion. It also provides fire hydrants in serviced areas to deal with fire situations. The Fire Department delivers water to areas where hydrants are not accessible.

From 1997 to 2001, individual well daily yields ranged from 198,342 to 793,967 gallons as depicted in the table on page 2. Private wells and 9 municipal wells provide a water source for the City of New Berlin. The municipal well configuration permits the

transfer between wells when shortages occur. Industrial parks obtain their water supply from 2 wells, 1,600 and 1,800 feet deep each, with capacity of 1,200 gallons per minute.

The New Berlin Water Utility owns and operates three water towers: a 500,000-gallon water tower on Valley View Drive in the southeast corner of the city, a 500,000-gallon tower on Calhoun Road on the north side. The newest, a 750,000-gallon water tower in Westridge Industrial Park near I-43, was brought on line in July 1999.

In 2001, the City of New Berlin pumped an average of 3,419,764 gallons per day. This amount was an increase of 889,137 (35.1%) gallons per day from the 2,530,627 gallons per day pumped in 1990. The average number of gallons of water sold per day in 2001 was 2,855,992, an increase of 319,337 (13%) from the 2,536,655 gallons sold per day in 1997. The growing customer base is a significant factor for the increase.

New Berlin Water Utility	
Well Inventory	1997 – 2001 Maximum Yield Per Day
Forest View	234,622
Glen Park	216,643
Greenridge	456,356
National Ave	793,967
Regal Manor Main	636,016
Rogers Dr	352,625
Valley View East	198,342
Valley View West	222,087
Westridge (<i>In Service beginning 1999</i>)	<u>285,997</u>
Mean Well Inventory yield per day	334,706

Source: Public Service Commission of Wisconsin Municipal Annual Report

Capital improvement project modifications will enable the City of New Berlin to serve existing and future growth in MMSD sewer service area along the easterly portion of the City. The City of New Berlin must interconnect transmission mains and pressure boosting stations in order to receive City of Milwaukee water. The proposed station connections to the Milwaukee system are recommended along 124th Street at Grange Avenue and Howard Avenue. Capital costs for construction of improvements to bring Milwaukee water to New Berlin were estimated at \$3,306,000, in terms of year 2000 dollars. The westerly portion of the City is not determined to have public water service.

According to an August 2001 City of New Berlin water study estimates, the level of water use in the proposed Milwaukee water service area will be 1.44 million gallons per day (525 million gallons per year). Demand is expected to increase and level off at 1.52 million gallons per day (555 million gallons per year) by 2010. From 2001 to 2010, water use could increase by 79,596 gallons per day or 5.53%. **However, Appendix A of the drafted Agreement between the City of Milwaukee and the City of New Berlin estimates aggregate total demand in 2003 at 3.97 MGD, increasing to 4.78 MGD in year 2010.** The Milwaukee Water Works expects to generate \$608,000 annually if New Berlin purchases 1.7 million gallons per day. Water Works revenues from all customer in 2001 totaled \$70,560,439 and are expected to increase to \$74,082,082 in 2002.

The proposed New Berlin service boundary for water purchased from the Milwaukee Water Works had been reduced over time. New Berlin does not contemplate using Milwaukee water for any new industrial developments prior to the year 2010.

**Proposed New Berlin Demand for Milwaukee Water Purchase
Customer Count**

Customer	2000 Proposed	2010 Proposed	Change	Percentage Change
Residential	4,965	5,233	268	5.4%
Commercial	67	76	9	13.44%
Industrial	4	4	0	0%
Public	10	12	2	20%
Customer Base	5,046	5,325	279	5.53%

Source: Ruekert-Mielke Engineering Solutions for a Working World

New Berlin Water Utility Expenses – 1997 to 2001

Water Utility Expense	1997	1998	1999	2000	2001	1997-2001 % Change
Pumping	\$ 477,244	\$ 432,275	\$ 509,011	\$ 535,781	\$ 611,130	28.1%
Water Treatment	132,110	161,343	172,251	174,498	133,318	1.0%
Transmission & Distribution	315,651	377,512	362,217	339,025	560,038	77.5%
Customer Accounts	69,470	65,933	68,043	64,805	72,151	3.9%
Administrative & General	290,966	306,863	347,583	284,487	360,063	23.8%

Source: Public Service Commission Of Wisconsin Municipal Annual Report Data

Impact on the Milwaukee Water Works

An engineering feasibility study, provided by Water Works as supporting documentation to this resolution, reviews various engineering approaches for providing water to this community. Please refer to that document for details.

The Water Works has sufficient capacity to produce additional water. Following is a table of annual pumpage since 1976 expressed in million gallons:

Year	Pumpage	Year	Pumpage	Year	Pumpage
1976	61,162	1985	52,658	1994	51,793
1977	59,064	1986	51,419	1995	51,242
1978	56,564	1987	52,944	1996	50,245
1979	56,622	1988	58,931	1997	48,326
1980	52,558	1989	52,850	1998	47,210
1981	51,938	1990	52,485	1999	47,976
1982	51,109	1991	54,403	2000	45,419
1983	51,828	1992	51,426	2001	44,997
1984	51,590	1993	49,385		

Source: Public Service Commission of Wisconsin

The Water Works' current treatment design capacity is 375 million gallons per day (MGD). The amount of water pumped in 2001 averaged 123 MGD. Between 1976 and 2001, the Water Works annual pumpage expressed in million gallons decreased from 61,162 in 1976 to 44,997 in 2001, a decrease of 16,165 (-26%). As of April 30, 2002, the Water Works has pumped 14.180 billion gallons of water this year. The progressive decline in volume pumped is attributable to wet industry closures, and customers adopting water conservation measures. A purchase of water agreement with the City of New Berlin will not affect service to existing customers.

Today, if the City of Milwaukee decided not to allow the Water Works to sell water to the City of New Berlin, it could seek a contract with an intermediate wholesaler such as Wauwatosa, West Allis, or Wisconsin Gas Company's Water Services, which supplies water to a portion of Mequon. Any arrangement with Wauwatosa or West Allis, as existing wholesale customers of the MWW, would require Common Council approval. Alternatively, the City of New Berlin has indicated it could purchase water from the City of Oak Creek.

If the City of Milwaukee and City of New Berlin reach an agreement regarding water services, the Public Service Commission will accept and recognize the agreement unless there are unusual provisions in the agreement.

Water Works estimates the New Berlin purchase of water agreement will generate \$608,000 annually based on a 1.7 million gallons per day water sale. **The aggregate estimated maximum flow rate is 4.78 MGD based on section 1(a) of the Agreement between the City of Milwaukee and the City of New Berlin draft.** The Water Works will not assume any capital costs related to connecting water service to the City of New Berlin. The Water Works can require other communities seeking its water to cover all distribution system costs for providing those communities with Milwaukee water, if necessary.

Community Characteristics – City of New Berlin

POPULATION

Following the nation trend of urban populations moving from central cities to the suburbs, the City of New Berlin has experienced continued growth. Between 1980 and 1990, the population grew from 30,529 to 33,592, an increase of 3,063 residents (10%). Between 1990 and 2000, the population grew from 33,592 to 38,220, an increase of 4,628 (13.8%).

DEMOGRAPHICS

In 1990, the City population was 33,592. Caucasians accounted for 33,055 (98.4%) of the residents. African-Americans accounted for 80 (0.24%) of the residents. Other groups accounted for the remaining 457 residents (1.36%).

According to Census 2000, the City population was 38,220. Caucasians accounted for 36,631 (95.8%) of the residents. African-Americans accounted for 169 (0.4%) of the residents. Hispanics accounted for 595 (1.6%). Other groups accounted for the remaining 825 residents (2.2%). Population is concentrated greatest among 35 to 44 year-olds (18.2%) followed by 45 to 54 year olds (16.7%).

INCOME

U. S. Census 2000 indicated that the median household income of the City rose from \$49,394 in 1989 to \$67,576 in 1999, an increase of \$18,162 or 36.8%.

COMMUNITY SIZE – AREA SQUARE MILES

The City consists of 36.8 square miles.

HOUSING

2000 Census reports 14,921 total housing units in New Berlin, of which ~~14,495 or 97.1% is occupied housing~~. Owners occupy 11,778 (81.3%) of the 14,495 occupied-housing units. ~~The City also had a 1.1% homeowner vacancy rate and a 4.8% rental vacancy rate. On average, 2.79 persons reside in owner-occupied housing compared to 1.91 persons in rental housing.¹~~

YEAR	1995	1996	1997	1998	1999	1995-1999 CHANGE	1995-1999 %CHANGE
PROPERTY VALUE PER PERSON	\$58,468	\$62,021	\$64,046	\$66,828	\$72,200	\$13,732	23.50%

SOURCE: PUBLIC POLICY FORUM, SPENDING AND TAXING IN THE METROPOLITAN MILWAUKEE AREA

PROPERTY TAX RATE TRENDS

The City of New Berlin tax rate in 2002 was \$21.18 per \$1,000, an increase of \$0.42 per \$1,000 or 2% from the 2001 tax rate of \$20.76 per \$1,000.² In 2000, the tax rate was \$22.59 per \$1,000. Between 1998-2002, the tax rate decreased \$-6.26 (-23%) from \$27.44 to \$21.18.

The City's 2001 per capita property value was \$82,701.52, placing the City of New Berlin 27th among 147 southeastern Wisconsin municipalities ranked according to per capita property value.³ Milwaukee ranked 84th having a \$32,627.80 per capita property value. New Berlin's equalized property value grew 104.33% from 1992 - 2001.

BUSINESS

Data for employment within the City of New Berlin indicate that the primary sources of employment are in education, health and social services (19.5%), manufacturing (19%) and retail trade (11.9%).

¹ U.S. Census Bureau, Census 2000. Table DP-1. Profile of General Demographic Characteristics: 2000. Geographic Area: New Berlin City, Wisconsin

² Retrieved <http://www.newberlin.org/treasurer/rates2001.htm> on 12/18/01

³ Retrieved http://www.publicpolicyforum.org/sandt00/percap_wealth.html on 12/18/01

City of New Berlin

EMPLOYMENT BY INDUSTRY

	<u># EMPLOYED</u>	<u>% EMPLOYED</u>
AGRICULTURE, FORESTRY, & FISHING	51	0.2%
CONSTRUCTION	1,107	5.3%
MANUFACTURING	3,997	19.0%
TRANSPORTATION & PUBLIC UTILITIES	926	4.4%
WHOLESALE TRADE	982	4.7%
RETAIL TRADE	2,506	11.9%
INFORMATION	722	3.4%
FINANCE, INSURANCE, & REAL ESTATE	2,093	9.9%
PROFESSIONAL, SCIENTIFIC, MGMT, ADMIN	2,413	11.5%
ARTS, ENTERTAINMENT, RECREATION	902	4.3%
EDUCATION, HEALTH, SERVICES	4,953	23.5%
GOVERNMENT	387	1.8%
TOTAL	21,039	100.0%

Source: U S Census Bureau. Census 2000

REVENUE TRENDS

NEW BERLIN'S REVENUES 1996-2000 (Expressed in Thousands of Dollars)				
	<u>1996</u>	<u>2000</u>	<u>1996-2000</u> <u>CHANGE</u>	<u>%CHANGE</u>
ALL TAXES (PROPERTY, TIF, PILOT, ETC.)	\$11,522.3	\$18,029.1	\$6,506.8	56.48%
SPECIAL ASSESSMENT	915.1	284.3	-\$630.8	-68.94%
INTERGOVERNMENTAL REVENUES	2,507.1	3502.4	\$995.3	39.70%
LICENSES & PERMITS	1,231.8	1375.9	\$144.1	11.70%
FINES, FORFEITS, & PENALTIES	269.8	348.2	\$78.4	0.37%
PUBLIC CHARGES FOR SERVICES	487.8	950.5	\$462.7	94.86%
INTERG. CHARGES FOR SERVICES	158.2	176.4	\$18.2	11.51%
MISCELLANEOUS REVENUES	2,206.0	3127.8	\$921.8	41.79%
OTHER FINANCING SOURCES	12,774.1	7055.9	-\$5,718.2	-44.77%
TOTAL REVENUE	\$32,072.2	\$34,850.9	\$2,778.7	8.67%
SOURCE: COUNTY AND MUNICIPAL REVENUES AND EXPENDITURES 1992-2000 WISCONSIN DEPARTMENT OF REVENUE				

MUNICIPAL EXPENDITURE TRENDS

According to information published by the Public Policy Forum, New Berlin's municipal spending rose from \$30.2 million in 1996 to \$34.5 million in 2000, an increase of \$4.3 million or (14.24%).

NEW BERLIN'S EXPENDITURES 1996-2000*				
	<u>1996</u>	<u>2000</u>	<u>1996-2000</u> <u>CHANGE</u>	<u>%CHNG.</u>
EXPENDITURES				
OPERATING & CAPITAL EXPEND.	\$18,375.9	\$22,905.40	\$4,529.5	24.65%
TOTAL DEBT SERVICE	8,130.3	6,904.4	-\$1,225.9	-15.08%
OTHER FINANCING USES	<u>2,681.2</u>	<u>4,664.9</u>	<u>\$1,983.7</u>	73.99%
TOTAL EXPENDITURE	\$29,187.4	\$34,474.70	\$5,287.3	18.12%
* Expressed in Thousands of Dollars				
SOURCE: COUNTY AND MUNICIPAL REVENUES AND EXPENDITURES 1996-2000				

TOTAL # FULL-TIME EMPLOYEES

In 2000, the City of New Berlin employed 211 positions; 194 (91.9%) of the positions are full-time.

OTHER RELEVANT ISSUES/CONCERNS

2001 Tax Base by Type of Property – in millions

Municipality	Residential	% Chg. from 2000	Commercial	% Chg from 2000	Mfg.	% Chg. from 2000	2001 Total Equalized Value
Milwaukee	\$ 11,364	11.55	\$ 6,243	13.32	\$750	5.03	\$ 19,430
New Berlin	\$ 2,266	6.38	\$ 613	12.15	\$ 173	1.25	\$ 3,197

Source: http://www.publicpolicyforum.org/sand00/percap_propval.html

Ten-Year Property Value Growth – 1992 to 2001

Municipality	Residential	Commercial	Manufacturing	Total Equalized
Milwaukee	55.72%	39.67%	42.51%	46.45%
New Berlin	84.31%	134.75%	68.57%	77.07%

Source: <http://www.publicpolicyforum.org/josh/annualtaxbase.pdf>

Households & Income - 1999

Municipality	No. Households	Median Household Income	Median Family Income	Per Capita Income
Milwaukee	232,312	\$ 32,216	\$ 37,879	\$ 16,181
New Berlin	14,499	\$ 67,576	\$ 75,565	\$ 29,789

Source: U S Census Bureau, Census 2000

Poverty Status In 1999

Municipality	Families	Percent below poverty	Individuals	Percent below poverty
Milwaukee	23,687	17.4%	123,664	21.3%
New Berlin	139	1.3%	748	2.0%

Source: U S Census Bureau, Census 2000

Demographic Comparisons in 2000 - Percentages

Municipality	White	Black	Hispanic	Asian
Milwaukee	45.4%	38.6%	12%	2.9%
New Berlin	94.9%	0.4%	1.6%	2.3%

Source: U S Census Bureau, Census 2000

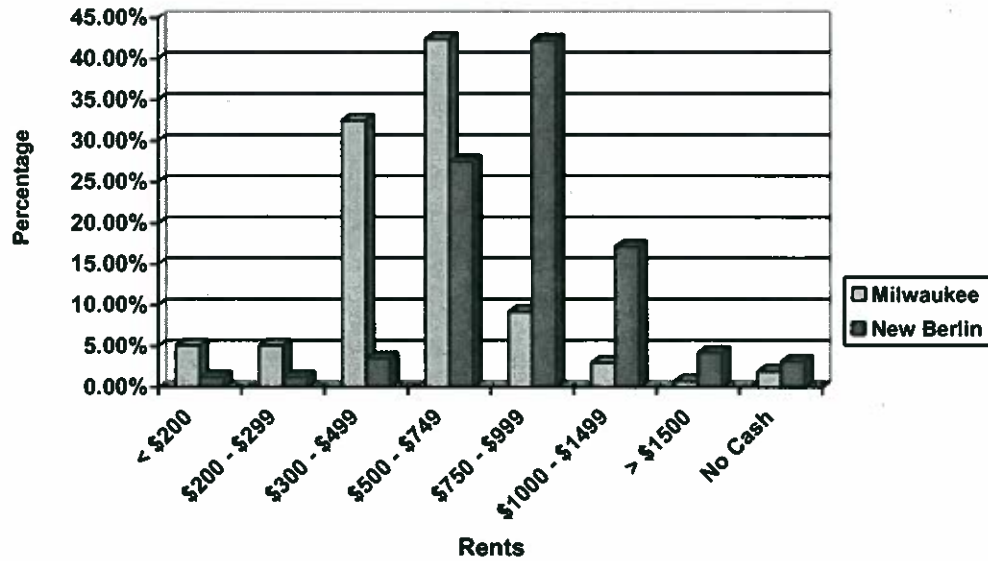
Municipal Tax Rate Comparison – 2001 to 2003

Municipality	2001	2002	2003	Change from 2001 to 2003
Milwaukee	\$10.49	\$10.87	\$10.15	- 3.25%
New Berlin	\$6.51	\$6.80	\$5.78	- 11.22%

Source: U S Census Bureau, Census 2000

OTHER RELEVANT ISSUES/CONCERNS

Comparison of Municipalities Specified Renter-Occupied Units



Source: U.S. Bureau of the Census, Census 2000

Comparison of Municipalities Specified Owner-Occupied Unit Values

