

COUNTY OF ANOKA

COMMUNITY HEALTH &
ENVIRONMENTAL SERVICES DEPARTMENT

(763) 422-7063

Anoka County Government Center
2100 3rd Ave. Room 360
Anoka, MN 55303-2264

Fax (763) 323-6150

June 5, 2008

Mr. Dale Homuth,
Minnesota Department of Natural Resources
1200 Warner Road
St. Paul, MN 55106

RE: Request for Groundwater Technical Analysis – Anoka County

Dear Mr. Hormuth:

Anoka County and its 21 municipalities will be preparing our mandated (MS 473.851) comprehensive plan updates. In recent years we have noted that the DNR has addressed water issues in Anoka County and the region through its regulatory and natural resource protection programs such as monitoring the impact of Ramsey municipal well withdrawal on ground and surface water resources.

To address natural resources (and water resources) in the County's comprehensive plan we request that the Department of Natural Resources provide groundwater information and analysis through your Technical Analysis Program. The County strives to cooperate in the protection of our environment and supports your efforts to sustain our natural resources.

1. Ground Water Availability Assessment. Please advise us of the potential availability of groundwater in the municipalities throughout Anoka County.
 - a. Is there sufficient groundwater to support the demand projected by the Metropolitan Council (see summary table below)?
 - b. Has the DNR established a maximum allowable volume of groundwater withdrawal (safe withdrawal) for groundwater in Anoka County?
2. Ground Water Supply Studies. Anoka County municipalities have indicated that development will continue to move and intensify in the northern areas of the County. The Metropolitan Council has suggested that reduced groundwater resources; potential for groundwater pollution; and the potential for groundwater withdrawal to adversely impact protected wetland and surface water in areas of the County could limit withdrawal making it uncertain that local groundwater will adequately support development (see summary table below).
 - a. Does the DNR concur with the Met Council's assessment of the adequacy of local groundwater supply to meet projected demand?

- b. Does the DNR concur with the Met Council's determined "withdrawal limitations" (due to pollution potential, surface water interaction, or both) for each community?
 - c. Does the DNR concur with the Met Council's determination that local water supply (groundwater) for the City of Blaine and Ramsey is "uncertain?"
3. Ground Water Level Monitoring Program. It is our understanding that the DNR has collected groundwater level information from monitoring and production wells – including municipal wells over the past several decades. Also, through your regulatory programs, additional wells and surface water level monitoring stations have been established to determine whether withdrawal is reducing groundwater levels or impacting surface water resources. However, the results of these monitoring efforts are not readily available to the Anoka County.
- a. Has the DNR established a sufficient groundwater level monitoring system in Anoka County?
 - b. Does the existing groundwater level monitoring activities in Anoka County (and the region) indicate supply issues?
 - c. Does the existing DNR water level monitoring activities indicate that groundwater withdrawal is impacting wetlands or surface water resources?

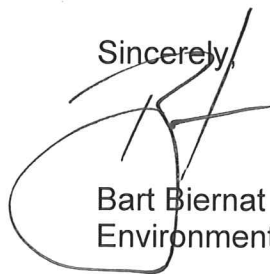
We request that you please provide us with the location and description (aquifer unit or surface water) of water resources monitored in Anoka County through your water level monitoring programs.

Finally, we would like to know if we are able to support you in programs to protect and sustain our water resources.

Please provide me with a written response to our requests so that we can pass on the information to our communities during our review of their comprehensive plans.

If you have any questions, please feel free to call me at (763) 422-6985.

Sincerely,



Bart Biernat
Environmental Health Specialist

Municipal and Non-Municipal Groundwater Demand Projections*

Community		2004	2010	2020	2030	2040	2050
Andover	Muni	2.265	2.750	3.352	3.351	4.036	4.602
	Non-Muni	1.039	1.039	1.039	1.039	1.039	1.039
	Total Daily Demand (MGD)	3.304	3.789	4.391	4.390	5.075	5.641
	Total Annual Demand (MG)	1,206	1,383	1,603	1,602	1,852	2,059
Anoka	Muni	2.347	2.454	2.557	2.686	2.840	3.013
	Non-Muni	0.000	0.000	0.000	0.000	0.000	0.000
	Total Daily Demand (MGD)	2.347	2.454	2.557	2.686	2.840	3.013
	Total Annual Demand (MG)	857	896	933	980	1,037	1,100
Bethel (non-Muni)	Non-Muni	0.044	0.040	0.040	0.045	0.048	0.053
	Total Annual Demand (MG)	16	15	15	16	18	19
Blaine	Muni	6.546	8.474	9.550	9.287	10.562	11.888
	Non-Muni	0.366	0.366	0.366	0.366	0.366	0.366
	Total Daily Demand (MGD)	6.912	8.840	9.916	9.653	10.928	12.254
	Total Annual Demand (MG)	2,523	3,227	3,619	3,523	3,989	4,473
Burns Twp (non-Muni)	Non-Muni	0.362	0.394	0.439	0.510	0.641	0.743
	Total Annual Demand (MG)	132	144	160	186	234	271
Centerville	Muni	0.222	0.225	0.252	0.291	0.332	0.375
	Non-Muni	0.023	0.023	0.023	0.023	0.023	0.023
	Total Daily Demand (MGD)	0.245	0.248	0.275	0.314	0.355	0.398
	Total Annual Demand (MG)	89	91	100	115	130	145
Circle Pines	Muni	0.443	0.488	0.479	0.488	0.530	0.554
	Non-Muni	0.004	0.000	0.000	0.000	0.000	0.000
	Total Daily Demand (MGD)	0.447	0.488	0.479	0.488	0.530	0.554
	Total Annual Demand (MG)	163	178	175	178	193	202
Columbus (non-Muni)	Non-Muni	0.363	0.352	0.373	0.412	0.437	0.475
	Total Annual Demand (MG)	132	128	136	150	160	173
Coon Rapids	Muni	7.968	8.404	8.020	7.483	7.994	8.145
	Non-Muni	0.000	0.000	0.000	0.000	0.000	0.000
	Total Daily Demand (MGD)	7.968	8.404	8.020	7.483	7.994	8.145
	Total Annual Demand (MG)	2,908	3,067	2,927	2,731	2,918	2,973
East Bethel (non-Muni)	Non-Muni	1.004	1.038	1.030	1.065	1.399	1.529
	Total Annual Demand (MG)	366	379	376	389	511	558
Fridley	Muni	3.210	3.157	2.989	2.894	2.992	3.056
	Non-Muni	0.000	0.000	0.000	0.000	0.000	0.000
	Total Daily Demand (MGD)	3.210	3.157	2.989	2.894	2.992	3.056
	Total Annual Demand (MG)	1,172	1,152	1,091	1,056	1,092	1,115
Ham Lake (non-Muni)	Non-Muni	1.277	1.338	1.338	1.338	1.866	2.069
	Total Annual Demand (MG)	466	488	488	488	681	755
Lexington	Muni	0.247	0.258	0.246	0.238	0.256	0.265
	Non-Muni	0.001	0.000	0.000	0.000	0.000	0.000
	Total Daily Demand (MGD)	0.248	0.258	0.246	0.238	0.256	0.265
	Total Annual Demand (MG)	91	94	90	87	93	97
Lino Lakes	Muni	1.292	1.662	1.934	2.220	2.694	3.088
	Non-Muni	0.490	0.490	0.490	0.490	0.490	0.490
	Total Daily Demand (MGD)	1.782	2.152	2.424	2.710	3.184	3.578

	Total Annual Demand (MG)	650	785	885	989	1,162	1,306
Linwood (non-Muni)	Non-Muni	0.431	0.433	0.440	0.475	0.566	0.622
	Total Annual Demand (MG)	157	158	161	173	207	227
Oak Grove (non-Muni)	Non-Muni	0.656	0.678	0.730	0.757	0.811	0.874
	Total Annual Demand (MG)	239	247	266	276	296	319
Ramsey	Muni	1.509	3.300	5.206	4.932	6.243	7.319
	Non-Muni	0.929	0.929	0.929	0.841	0.841	0.841
	Total Daily Demand (MGD)	2.438	4.229	6.135	5.773	7.084	8.160
	Total Annual Demand (MG)	890	1,544	2,239	2,107	2,586	2,978
Spring Lake Park	Muni	0.741	0.701	0.666	0.650	0.706	0.704
	Non-Muni	0.000	0.000	0.000	0.000	0.000	0.000
	Total Daily Demand (MGD)	0.741	0.701	0.666	0.650	0.706	0.704
	Total Annual Demand (MG)	270	256	243	237	258	257
St. Francis	Muni	0.401	0.516	0.774	1.003	1.275	1.533
	Non-Muni	0.203	0.203	0.203	0.203	0.203	0.203
	Total Daily Demand (MGD)	0.604	0.719	0.977	1.206	1.478	1.736
	Total Annual Demand (MG)	220	262	357	440	539	634
COUNTY-WIDE ANNUAL TOTAL (MG)		12,550	14,495	15,865	15,727	17,954	19,662

* Combined and modified from Tables E-2 and E-3 of the Water Supply Planning in the Twin Cities Metropolitan Area – Technical Report (Metropolitan Council, Jan 2007)

Adequacy of Local Supplies to Meet 2050 Water Supply Demands*

Community	Aquifer Yield	Withdrawal Limitations	Demand Projections	Combined Ranking	Adequacy Code
Andover	C	3	M	C3M	A
Anoka	D	0	VH	D0VH	A
Bethel	D	0	L	D0L	A
Blaine	C	3	H	C3H	U
Burns Twp	D	0	L	D0L	A
Centerville	B	0	M	B0M	A
Circle Pines	C	0	H	C0H	A
Columbus	D	0	L	D0L	A
Coon Rapids	C	3	H	C3H	A
East Bethel	D	3	L	D3L	A
Fridley	A	0	H	A0H	A
Ham Lake	D	3	L	D3L	A
Lexington	D	0	VH	D0VH	A
Lino Lakes	B	0	M	B3M	A
Oak Grove	D	0	L	D0L	A
Ramsey	C	3	H	C3H	U
Spring Lake Park	B	0	H	B0H	A
St. Francis	C	3	L	C3L	A
Aquifer Yield A: Very high potential aquifer yield B: High potential aquifer yield C: High to moderate potential aquifer yield D: Moderate potential aquifer yield R: Restrictive potential aquifer yield		Withdrawal Limitations (due to pollution/impact surf water) 0: No major limitations on groundwater withdrawal 1: Important limitations on groundwater withdrawal 2: Significant possible limitations 3: Some possible limitations			
Demand Projection (withdrawal limitations) L: Low municipal demand M: Medium municipal demand H: High municipal demand M: Very high municipal demand		Adequacy Code A: Adequate local water supply E: Possible excess local water supply U: Uncertain local water supply			

* Excerpted and modified from Tables F-1 of the Water Supply Planning in the Twin Cities Metropolitan Area – Technical Report (Metropolitan Council, Jan 2007)