

BEFORE THE COLORADO GROUND WATER COMMISSION

CASE NO. \_\_\_\_\_

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PETITION TO THE COLORADO GROUND WATER COMMISSION FOR RULEMAKING TO AMEND RULE 5.2.5.2 OF THE RULES AND REGULATIONS FOR THE MANAGEMENT AND CONTROL OF DESIGNATED GROUND WATER TO MAKE OVERAPPROPRIATED THAT PORTION OF THE LOST CREEK DESIGNATED GROUND WATER BASIN KNOWN AS THE HAY GULCH SUBBASIN AND TO REQUIRE REPLACEMENT PLANS FOR NEW LARGE CAPACITY WELLS THEREIN

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MORGAN COUNTY QUALITY WATER DISTRICT, PETITIONER

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The Morgan County Quality Water District ("District"), by and through its attorneys, Bernard, Lyons, Gaddis and Kahn, P.C., hereby petitions the Colorado Ground Water Commission ("Commission") to amend Rule 5.2.5.2 of the Rules and Regulations for the Management and Control of Designated Ground Water, 2 Colo. Code Regs. 410-1 ("Rule 5.2.5.2"). The petition is submitted in accordance with of the Rules 4.B and 4.C of the Rules of Procedure for All Hearings Before the Colorado Ground Water Commission. 2 Colo. Code Regs. 410-1. In support of this petition, the District states:

I. IDENTIFICATION OF THE PERSON REQUESTING RULEMAKING

1. The District's contact information is

Morgan County Quality Water District  
c/o Mark Kokes, General Manager  
P.O. Box 1218  
17586 Road 20  
Fort Morgan, CO 80701  
970-867-3054

all pleadings, communications and other documents related to this rulemaking should be sent to:

Jeffrey J. Kahn, Esq. and Matthew Machado  
Bernard, Lyons, Gaddis and Kahn P.C.  
515 Kimbark Street, 2<sup>nd</sup> Floor  
Longmont, Co 80502  
*jkahn@blglaw.com, mmachado@blglaw.com*

## II. NATURE OF THE REQUESTED RULE

2. The District is a special district organized pursuant to Title 32 of the Colorado Revised Statutes. The District was formed in 1976 to provide potable water primarily to rural residents in Morgan County and portions of Weld and Washington Counties. Currently, the District serves approximately 2775 taps in said counties.

3. The primary source of water used by the District is the alluvial aquifer of the Hay Gulch Subbasin of the Lost Creek Designated Ground Water Basin ("Hay Gulch aquifer"). Since approximately 1978, the District has withdrawn water from the Hay Gulch aquifer using five wells for which final permits have been issued by the Commission. These permits allow the District to withdraw and export 2130 acre feet per year for use in the District's municipal system to serve the aforementioned 2775 taps. The District also has one conditional permit to withdraw and export an additional 750 acre feet from the Hay Gulch aquifer.

4. The Hay Gulch aquifer is topographically and hydrologically separated from the Lost Creek Basin, and both are depicted on the map from the report entitled "Ground Water Resources of the Lost Creek Drainage Basin" prepared by Nelson, Haley, Patterson and Quirk for the Colorado Ground Water Commission in June, 1967, which map is attached as EXHIBIT A.

5. Agriculture is non-existent in the Hay Gulch Subbasin, as the topography consists primarily of ancient sand dunes. Cattle grazing occurs within the Hay Gulch Subbasin to a very limited extent, as the sand dunes do not support high quality range.

6. Currently, applications for new large capacity wells in the Hay Gulch aquifer in the area north of the line between Township 2 North and Township 3 North may be approved without a replacement plan pursuant to Rule 5.2.1 of the Rules and Regulations for the Management and Control of Designated Ground Water. 2 Colo. Code Regs. 410-1. Rule 5.2.1 prohibits new wells within ½ mile of existing large capacity wells absent a Waiver of a Claim of Injury. This rule is a default rule that applies to aquifers in designated groundwater basins for which more specific rules have not been adopted.

7. Pursuant to current Rule 5.2.5.2, the areas of Hay Gulch aquifer to the south of the line between Township 2 North and Township 3 North are overappropriated, and no new large capacity wells are permitted in this area without a replacement plan.

8. The water level in the Hay Gulch aquifer has been declining and the aquifer is in a "mining" condition due to pumping from Hay Gulch (i.e. withdrawals are materially in excess of recharge to the aquifer). Therefore, the area of the Hay Gulch aquifer north of the line between Township 2 North and Township 3 North is also overappropriated.

9. To the best of the District's knowledge and understanding, the Colorado Ground Water Commission ("Commission") previously has not formally considered a proposed rule concerning whether the north area of the Hay Gulch aquifer is overappropriated. However, in the past Commission staff has denied several permit applications due to the over-appropriated condition of the Hay Gulch aquifer.

10. The proposed amendment to Rule 5.2.5.2 would establish an allowable rate of depletion for the remainder of the Hay Gulch aquifer that prohibits new appropriations.

### III. PROPOSED AMENDMENT RULE

11. The District requests that the Commission amend Rule 5.2.5.2 as follows (proposed changes consist of additions to existing Rule 5.2.5.2 denoted by double underlining):

5.2.5.2 The Alluvial Aquifer within the Lost Creek Designated Ground Water Basin area south of the line between Township 2 North and Township 3 North and area east of the line between Range 61 West and Range 62 West is determined to be overappropriated and, therefore, no new large capacity well permits shall be granted in this area unless a replacement plan is approved by the Commission in accordance with Rule 5.6. A new large capacity well permit can be granted to appropriate water from the Alluvial Aquifer within the Lost Creek Designated Ground Water Basin area north of the line between Township 2 North and Township 3 North and west of the line between Range 61 West and Range 62 West if this appropriation does not unreasonably impair any existing water rights.

### IV. STATEMENT OF COMMISSION'S AUTHORITY TO PROMULGATE THE RULE

12. Petitions for rulemaking are to be acted upon by the Commission in accordance with the State Administrative Procedure Act, §§ 24-4-101 to -108, C.R.S., and the Colorado Ground Water Management Act, §§ 37-90-111, -112 and -131, C.R.S.

13. Section 37-90-111 (h), C.R.S. authorizes the Commission to adopt rules necessary to carry out the policy of the State of Colorado to conserve designated ground water resources and protect vested rights in accordance with the procedures set forth in § 37-90-131, C.R.S.

14. The Commission is required to protect vested rights for the withdrawal of designated ground water and maintain reasonable pumping levels. §§ 37-90-102(1), -107, -109, and -111, C.R.S.; *Thompson v. Colorado Ground Water Commission*, 575 P.2d 372, 377 (Colo. 1978).

15. The Commission has the authority to determine "the allowable rate of depletion for ground water in each designated ground water basin," which serves as the basis for determining "whether a proposed permit would result in unreasonable impairment to existing water rights." 2 Colo. Code Regs. 410-1, Rule 3.1; § 37-90-111(b), C.R.S.

16. The Commission has the authority to establish reasonable ground water pumping levels by determining whether pumping will unreasonably affect any prior water right or result in withdrawing the ground water supply at a rate materially in excess of the reasonably anticipated average rate of future recharge. § 37-90-111(b), C.R.S.

17. Pursuant to 2 Colo. Code Regs. 410-1, Rule 4.2.20,

"Overappropriated Aquifer" means an aquifer for which the net average annual depletion rate of ground water is considered to be in excess of the allowable net average annual depletion rate for that aquifer as set by the Commission.

18. For other overappropriated aquifers, the Commission has adopted rules that disallow any additional new large capacity wells in order to prevent additional depletions. 2 Colo. Code Regs. 410-1, Rules 5.2.2.8 (portions of the Northern High Plains alluvial and Ogallala aquifers), 5.2.4.2 (Kiowa Bijou alluvial aquifer), 5.2.5.2 (portions of the Lost Creek alluvial aquifer), 5.2.6.2 (Upper Black Squirrel alluvial aquifer), 5.2.9.2 (Upper Crow Creek Fan aquifer). The proposed amendment to Rule 5.2.5.2 is similar to these rules.

#### IV. CONCISE STATEMENT OF THE RULE'S BASIS AND PURPOSE

19. The boundaries of the Hay Gulch aquifer are depicted on EXHIBIT A.

20. Recharge of the Hay Gulch aquifer occurs almost exclusively by recharge from precipitation. The estimated annual amount of recharge entering the Hay Gulch aquifer is one inch per year. This results in approximately 1600 acre feet per year of total recharge to the Hay Gulch aquifer.

21. Currently, the appropriations for final permits in the Hay Gulch aquifer for large capacity wells are estimated to total 2130 acre feet per year. In addition, conditional permits allow the withdrawal of an additional 750 acre feet per year. A list of the high capacity wells in Hay Gulch is attached as EXHIBIT B.

22. Pumping of the District's Wells has occurred at rates of up to 1380 acre feet per year.

23. The "historical water level" is defined by § 37-90-103(10), C.R.S. as the average elevation of the ground water level in any area before being lowered by the activities of man, as nearly as can be determined from scientific investigation and available

facts. The historical water level in the Hay Gulch aquifer as defined by elevation varied depending on the location in the aquifer, although the historical water level as defined by the saturated thickness in the primary channel of the Hay Gulch aquifer averaged 110-120 feet thick.

24. Since the District's large capacity wells started pumping, the water level and the saturated thickness have declined at a nearly uniform rate of 0.6 feet per year, as depicted on the chart attached as EXHIBIT C. This steady rate of decline in water levels demonstrates that the current rate of withdrawals is materially in excess of the reasonably anticipated average rate of future recharge, and the rates of decline in water levels and saturated thickness are anticipated to increase as the water level is drawn down toward the bottom of the aquifer.

25. Pumping of the District's wells has caused the Hay Gulch alluvial aquifer to enter a mining condition. Based on models of the Hay Gulch aquifer, any additional future pumping of the Hay Gulch Alluvial aquifer beyond 1380 acre feet per year will exacerbate the mining condition and unreasonably shorten the life of the aquifer.

26. Principia Mathematica Inc. has developed a mathematical groundwater model of the Hay Gulch aquifer to examine the interaction of pumping and water levels, aquifer recharge, and the effect of new withdrawals on vested rights. The model demonstrates that continued pumping of 1380 acre feet per year from the Hay Gulch aquifer results in water level declines to the point where the saturated thickness is exhausted by approximately the year 2080.

27. Given the the steady rate of decline in the Hay Gulch aquifer water levels as well as the economic importance of this water as a source of drinking water for thousands of residents in Weld, Morgan and Washington Counties, the Commission should find that new withdrawals will unreasonably impair and affect existing vested rights unless withdrawals by new large capacity wells are replaced under a replacement plan. In addition, the amount by which annual withdrawals exceed recharge would be increased by new withdrawals from the Hay Gulch aquifer, and further unreasonably affect and impair existing water rights. Because the Hay Gulch aquifer is an existing municipal water supply for many thousands of residents in Weld, Morgan and Washington Counties, the Commission should find this exceedance is material.

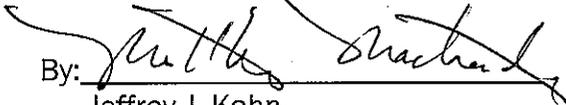
28. Because new withdrawals will unreasonably affect vested rights and the annual withdrawals materially exceed the recharge rate, the Commission should amend Rule 5.2.5.2 as set forth in Section III above.

IV. MISCELLANEOUS

29. This petition is submitted based on the District's current knowledge. The District may supplement the information provided herein as more data and information is obtained by the District.

Dated: March 27, 2009.

BERNARD LYONS GADDIS & KAHN, PC  
*Pursuant to Rule 121 the signed  
original is on file in the office of  
Bernard Lyons Gaddis & Kahn, P.C.*

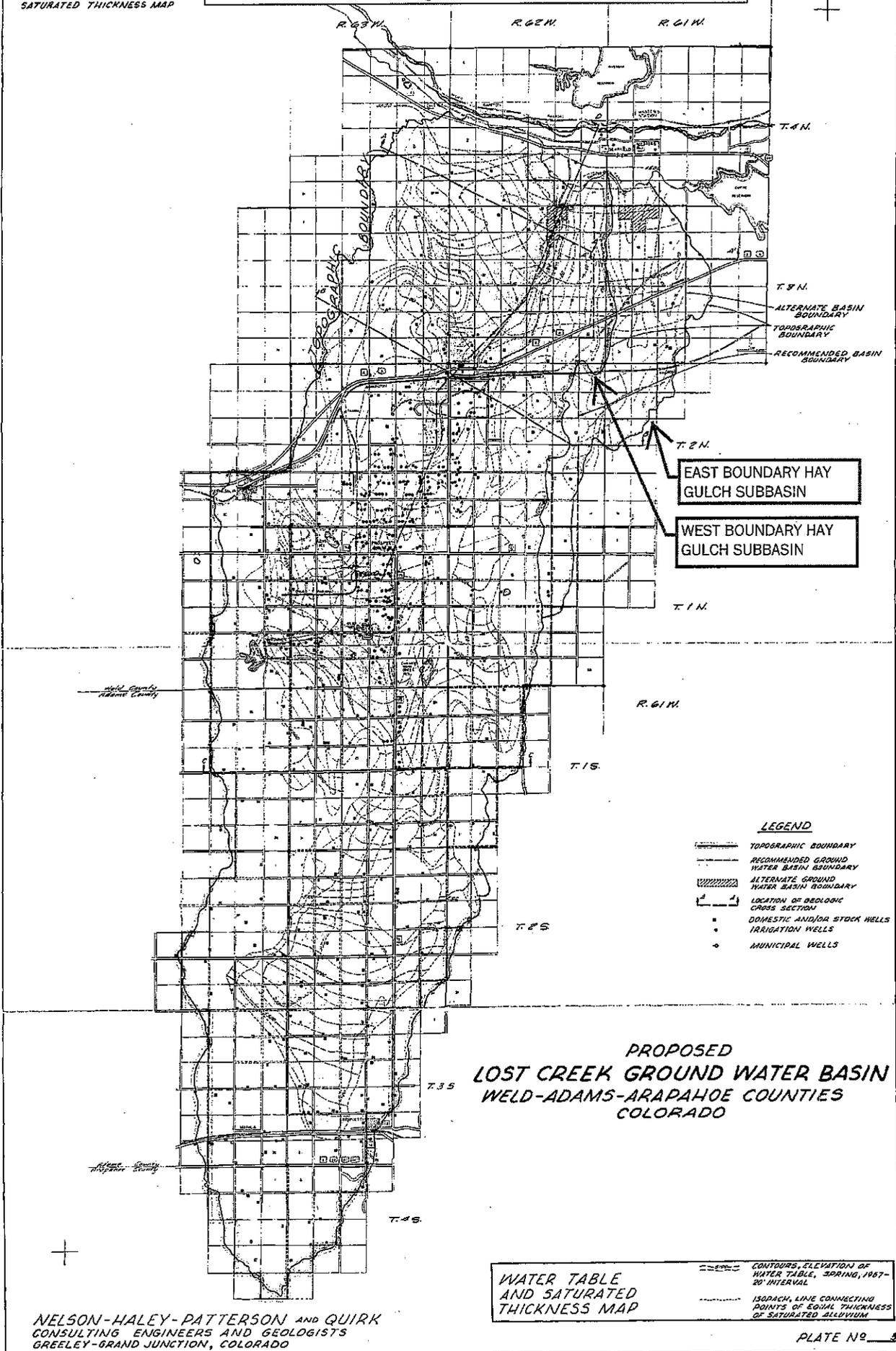
By: 

Jeffrey J. Kahn

Matthew Machado

ATTORNEYS FOR MORGAN COUNTY  
QUALITY WATER DISTRICT

# EXHIBIT "A" TO PETITION BY MORGAN COUNTY QUALITY WATER DISTRICT



EAST BOUNDARY HAY GULCH SUBBASIN

WEST BOUNDARY HAY GULCH SUBBASIN

- LEGEND**
- TOPOGRAPHIC BOUNDARY
  - RECOMMENDED GROUND WATER BASIN BOUNDARY
  - ALTERNATE GROUND WATER BASIN BOUNDARY
  - LOCATION OF GEOLOGIC CROSS SECTION
  - DOMESTIC AND/OR STOCK WELLS
  - IRRIGATION WELLS
  - ◇ MUNICIPAL WELLS

**PROPOSED LOST CREEK GROUND WATER BASIN WELD-ADAMS-ARAPAHOE COUNTIES COLORADO**

WATER TABLE AND SATURATED THICKNESS MAP

--- CONTOURS, ELEVATION OF WATER TABLE, SPRING, 1967-20' INTERVAL

--- ISOPACHS, LINE CONNECTING POINTS OF EQUAL THICKNESS OF SATURATED ALLUVIUM

**EXHIBIT "B" TO PETITION BY MORGAN COUNTY QUALITY WATER DISTRICT**

**Large Capacity Wells in Hay Gulch Subbasin of the Lost Creek Designated Ground Water Basin**

Name and Permit Number	AF/Year	GPM	Date	Permitted Uses	Location
Krause #1.18338-FP and 31665-FP	1380*	1200	5/15/1974 & 3/20/1975	Livestock, Recreation, Commercial, Industrial + Municipal Export	SW/4 NE/4 §5, T3N, R61W
Krause #2.17501-FP	1380*	1600	1/20/1971	Livestock, Recreation, Commercial, Industrial + Municipal Export	NW/4 SW/4 §8, T3N, R61W
Krause #3 17502-FP	1380*	1600	1/20/1971	Livestock, Recreation, Commercial, Industrial + Municipal Export	NE/4 NW/4 §8, T3N, R61W
Krause #4 16644FP	1380*	1600	9/12/1972	Livestock, Recreation, Commercial, Industrial + Municipal Export	SW/4 SW/4 §8, T3N, R61W
Krause #5 23851-FP	750	515	6/4/1975	Livestock, Commercial, Industrial + Municipal	SW/4 NE/4 §7, T3N, R61W
Krause #6	750 (Conditional)	1000	4/1/2008	Municipal purposes within District	NW/4 SW/4 §8, T3N, R61W
Totals	2880	7515			

\*The combined appropriation from Krause Wells #1-#4 is 1380 AF/year.



# North Monitor Well

MCQWD Krause Well Field in Hay Gulch

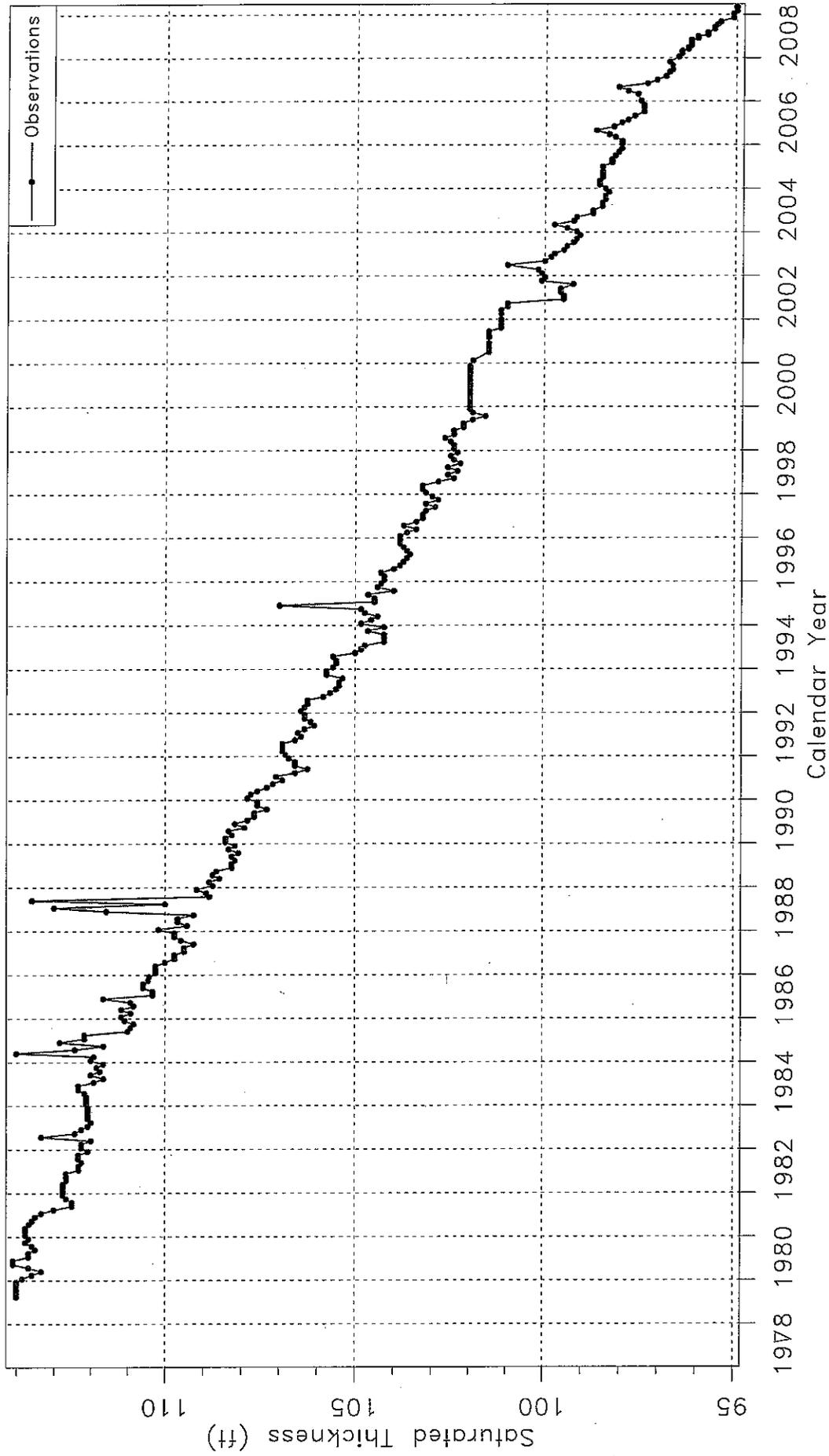


Exhibit C to Petition of Morgan County Quality Water District