BEFORE THE DEPARTMENT
OF NATURAL RESOURCES AND CONSERVATION
OF THE STATE OF MONTANA

* * * * * * * * * *

IN THE MATTER OF THE APPLICATION FOR BENEFICIAL WATER USE PERMIT NO. 41432-g76LJ BY CROP HAIL MANAGEMENT, INC.) FINAL ORDER

* * * * * * * * * *

The time period for filing exceptions to the Hearing Examiner's Proposal for Decision has expired. No timely exceptions were received from any party of record. Written comments were submitted by Chuck Brasen, Field Manager of the Kalispell Water Rights Bureau Field Office; these comments will be discussed in the Memorandum to this Order.

The Department accepts and adopts the Findings of Fact and Conclusions of Law of the Hearing Examiner as contained in the September 14, 1984 Proposal for Decision, and incorporates them herein by reference. Based upon these Findings of Fact and Conclusions of Law, and all files and records herein, the Department makes the following:

ORDER

Subject to the terms, restrictions, conditions, and limitations specified below, Application for Beneficial Water Use Permit No. 41432-g76LJ is hereby granted to Crop Hail Management, Inc. to appropriate 313 gpm up to 336 acre-feet per year from the groundwater source. The water is to be used for domestic and commercial purposes in the Eagle Bend Development; in the W½E½

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and the E½NW¼ of Section 26, Township 27 North, Range 20 West for commercial uses, and in the W½E½ and E½NW¼ of Section 26, Township 27 North, Range 20 West for domestic uses, all in Flathead County, Montana. The period of use is January 1 to December 31, inclusive, of each year. The source of supply is groundwater, to be diverted by means of pumps from two wells; one located in the SE¼SE¼NW¼ of Section 26, and one located in the SE¼SW¼SE¼ of Section 26, all in Township 27 North, Range 20 West, Flathead County, Montana. The priority date for this Permit shall be 1:48 p.m., December 29, 1981.

This Permit is issued subject to the following express terms, conditions, restrictions, and limitations:

A. The water right evidenced by this Permit is subject to all prior and existing rights, and to any final determination of such rights as provided by Montana Law. Nothing herein shall be construed to authorize appropriations by the Permittee to the detriment of any senior appropriator.

B. Nothing herein shall be construed to affect or reduce the Permittee's liability for damages which may be caused by the exercise of this Permit. Nor does the Department, in issuing this Permit, acknowledge any liability for damages caused by the exercise of this Permit, even if such damage is a necessary and unavoidable consequence of the same.

C. The Permittee shall in no event withdraw or cause to be withdrawn waters from the source of supply in excess of the quantity reasonably required for the purposes provided for herein.

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D. The Permittee shall install flow meters on its pumps, and shall keep a written record of the flow rates, volumes, and periods of diversion of all waters diverted pursuant to this Permit. They shall make these records available to the Department upon request.

NOTICE

The Department's Final Order may be appealed in accordance with the Montana Administrative Procedures Act by filing a petition in the appropriate court within thirty (30) days after service of the Final Order.

DONE this 28th day of November, 1984.

Gary Fritz

Gary Fritz, Administrator
Water Resources Division
Department of Natural Resources
and Conservation
32 South Ewing, Helena, MT 59620
(406) 444 - 6605

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MEMORANDUM

In a written comment on the Proposal for Decision in this matter, Kalispell Water Rights Bureau Field Manager Chuck Brasen addressed the issues of the proposed flow rate and of the water available for fire flow. (A copy of Mr. Brasen's comment has been enclosed).

A. Flow rate

With regard to the proposed flow rate of 313 gallons per minute (hereafter, "gpm"), Mr. Brasen expressed concern that the Applicant's pump design may require an initial (startup) pumping rate in excess of the proposed 313 gpm flow amount, and that the limitation of flow rate to 313 gpm therefore may cause the Applicant to be in periodic (if not permanent) violation of the maximum flow rate granted under this Permit.

As Findings of Fact 15 and 16 in the Proposal indicate, there is no information in the record to show that the Applicant requires a pumping rate higher than 313 gpm, even at the initial startup stage. The evidence indicates that the Applicant's pumping system is capable of pumping at greater rates prior to maximum drawdown. However, there is no indication that higher pumping rates are required in order for the pumps to operate properly or in order to meet the use requirements for which the appropriation has been granted. Jackola Engineering stated that the pump design sets 300 gpm as a minimum requirement, and the project manager for the Applicant stated that the Applicant would be "amenable" to placing the water right at the 313 gpm amount. (See, Findings of Fact 15 and 16).

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A lower flow rate minimizes the chances of adverse effect on the surrounding water users, and maximizes the length of time that pumping can be maintained in order to meet the Applicant's ongoing water use needs. Although it is possible, even though the record in this matter does not so indicate, that the Applicant's pump design requires an initial flow rate in excess of the proposed maximum of 313 gpm, the Applicant has not filed an exception to the Proposal for Decision.

MCA § 2-4-621(3) states in pertinent part, "The agency may adopt the proposal for decision as the agency's final order. The agency in its final order may reject or modify the conclusions of law and interpretation of administrative rules in the proposal for decision...". Mr. Brasen's comment voices a possible basis for modification of the flow rate discussed in Conclusion of Law No. 17. However, in the absence of factual information from the Applicant which indicates that a higher flow rate is necessary or desirable in order to properly operate its pumping system, and in view of the fact that the Applicant did not file an exception to the Proposal for Decision in this matter, there is no basis for modifying the Conclusion of Law dealing with the flow rate, or for modifying the flow rate itself.

If the Applicant did not understand that the Permit will limit the maximum flow rate to 313 gpm, and failed to file an exception to the Proposal for Decision because it believes that higher flow rates will be allowed for pump startup, it should

apply for a Beneficial Water Use Permit for the additional flow rate. (An increased flow rate, if allowed, would not give the Applicant a right to any additional volume amount).

As a final clarification on the question of flow rate, it should be noted that the final sentences of Conclusion of Law No. 16 do not require the Applicant to conform to any set time period for pumping, but merely indicate that, within the limitations set by flow and volume maximums, the Applicant has the capability of altering the flow rate and times of pumping in order to meet user demands for water.

B. Fire volume

Mr. Brasen has raised the question of whether or not a specific volume should be included in the Permit for fire protection. To summarize and perhaps clarify the Proposal's discussion of "fire flow" requirements: "fire flow", or water required for fire protection needs, is available as part of the subdivision water system's "on line" water. According to the evidence in the record, Well 1 pumps water directly into the system's 150,000-gallon storage tank, and the tank serves as a pressure booster and gravity feeds the water into the subdivision. Although a 90,000 gallon storage level is maintained, the water flows through the tank as part of the water delivery system, and therefore there is not a separate "dead storage" appropriation of water for which a permit must be granted. (See Finding of Fact 22). If the Applicant should need to use that volume of water for fire protection, ARM 36.12.105 clearly authorizes it to do so even if the

appropriation causes the Permit amount to be exceeded. (See Conclusion of Law No. 13). However, in the absence of an emergency situation, there is no reason for granting the Applicant the right to appropriate a larger volume on a permanent basis.

BEFORE THE DEPARTMENT
OF NATURAL RESOURCES AND CONSERVATION
OF THE STATE OF MONTANA

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IN THE MATTER OF THE APPLICATION)
FOR BENEFICIAL WATER USE PERMIT) PROPOSAL FOR DECISION
NO. 41432-g76LJ BY CROP HAIL)
MANAGEMENT, INC.)

* * * * * * * * * *

Pursuant to the Montana Water Use Act and to the contested case provisions of the Montana Administrative Procedures Act, a hearing in the above-entitled matter was held on February 6, 1984, in Kalispell, Montana.

Crop Hail Management, Inc., the Applicant in this matter, appeared by and through its counsel, Dean Jellison, and the Eagle Bend Subdivision Project Manager, Tom Stephens. Dr. William E. Nork, Thor Jackola, William Osborne, and Michael Britton appeared as witnesses for the Applicant.

Objectors Arnold and Iris Dillard appeared personally, and Mr. Dillard acted as spokesman for the other Objectors.

Objector Jessie Craft appeared personally.

Objector Donald DeMars appeared personally.

Objectors James and Effie Dockstader were represented by Ray and Maureen Hines, their son-in-law and daughter.

Objectors Warren and Verona Hogue appeared personally.

Objectors Richard and Nancy Whitaker appeared personally.

Objectors Fred and Noreen Bjork appeared personally.

Dr. Gary Grimestad appeared as a witness for the Objectors.

Chuck Brasen, Field Manager of the Kalispell Water Rights

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Bureau Field Office, and Paul Lemire, Department of Natural Resources and Conservation geohydrologist, appeared as staff witnesses for the Department of Natural Resources and Conservation (hereafter, the "Department").

Statement of the Case

On December 29, 1981, the Applicant filed an Application for Beneficial Water Use Permit seeking to appropriate 540 gallons per minute (gpm) up to 410 acre-feet per year from a combination of two groundwater manifolded wells; 399 acre-feet for domestic use, 10 acre-feet for commercial use, and 1 acre-foot for fire protection for a 266 unit subdivision located in the W½E½ and the E½NW¼ of Section 26, Township 27 North, Range 20 West, Flathead County, Montana. The water is to be diverted from the two wells by means of two pumps located in the SE¼SE¼NW¼ and the SE¼SW¼SE¼ of Section 26, Township 27 North, Range 20 West, Flathead County, between January 1 and December 31, inclusive, of each year.

The pertinent portions of the Applications were published in the Bigfork Eagle, a newspaper of general circulation in the area of the source, on September 1, 8, and 15, 1982.

Timely objections were filed to Application No. 41432-s76LJ by several objectors: Donald DeMars, Warren and Verona Hogue, Mrs. Walter C. Craft, Arnold and Iris Dillard, Richard and Nancy Whitaker, Fred and Noreen Bjork, and James A. Dockstader. Mr. DeMars alleged generally that his water supply would be affected, and that protection was needed for agricultural water supplies

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for the area. All of the other Objectors alleged that the proposed appropriation could lower the level of the aquifer, or "water table", to an elevation below the depth of their pumps, and adversely affect their water supplies.

The Kalispell Water Rights Bureau Field Office scheduled a February 8, 1983, meeting on the Application between the Applicant and the Objectors. Subsequent to this meeting, the Applicant revised the flow rate downward to 453 gpm, and stated that they would be amenable to "placing the water right at the amount delivered at maximum draw down which would be 313 gpm". (July 26, 1983 letter from Mike Britton, Eagle Bend general manager, to Charles F. Brasen, Field Manager of the Kalispell Water Rights Bureau Field Office). The Applicant also agreed to monitor the flow and volume of water appropriated from the wells, and to submit the records of such to the Department on an annual basis or upon demand.

Exhibits

The Applicant, Crop Hail Management, Inc., submitted three exhibits in support of their Application in the above-entitled matter:

Applicant's Exhibit 1 is a 9-sheet plat map of the Eagle Bend Subdivision which is the place of use for the proposed appropriation.

Applicant's Exhibit 2 is a 9-sheet blueprint of the water systems design for the Eagle Bend Subdivision.

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Applicant's Exhibit 3 is 2 blueprint-sheets showing the construction and mechanical and electrical designs for the well houses.

Applicant's Exhibits 1-3 were accepted into the record without objection.

The Objectors offered nine exhibits in support of their objections to the Application in the above-entitled matter:

Objectors Exhibit A is a written response by Richard Whitaker to questions posed in the pre-hearing information which the Department sends to all parties to allow preparation of full and complete answers to M.C.A. § 85-2-308 and § 85-2-311 criteria for a complete record at the hearing (hereafter, "pre-hearing information"). Attached to the response are photocopies of the Certificate of Water Right for the Whitaker Well, the Well Log Report of the well driller, and a map showing place of use and point of diversion of the Whitaker water use right.

Objectors' Exhibit B is a written response by James and Effie Dockstader to the pre-hearing information, referencing their Certificate of Water Right, Statement of Claim for Existing Water Rights, and Acknowledgement thereof, Declaration of Vested Groundwater Rights, Well Log Report, and an attached sketch of place of use and points of diversion of the two wells.

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Objectors' Exhibit C is a written response by Warren and Verona Hogue to the pre-hearing information, with photocopies of the Hogue Objection to Application in the present matter, and a map showing place of use and point of diversion of the Hogue well.

Objectors' Exhibit D is a written response by Fred and Noreen Bjork to the pre-hearing information, referencing their objection and the documents in the file in this matter that refer to the Bjork water use right.

Objectors' Exhibit E is a written response by Jessie Craft to the pre-hearing information, referencing the Craft Objection in this matter, and including a sketch of the place of use and point of diversion of the Craft well.

Objectors' Exhibit F is a written response by Donald DeMars to the pre-hearing information, with a photocopy of his Objection in this matter and a sketch of the location of his well.

Objectors' Exhibit G is a written response by Arnold and Iris Dillard to the pre-hearing information, with photocopies of the Dillard Objection in this matter, their Statement of Claims for Existing Water Rights, Notice of Completion of Groundwater Well, and map of place of use of point of diversion for the Dillard Well.

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Objectors' Exhibit H is a scale graph labelled "Graph of Well Status", showing the surface elevations, well depths, and depth of penetration of the bedrock aquifer for all of the Objectors' and Applicant's wells.

Objectors' Exhibit I is a bar graph labelled "Graph of Proposed and Needed Water Volumes", depicting in gpm and acre-feet the original Application amount, the revised Application amount, and the amount of water the Objectors feel is sufficient to meet the Applicant's actual needs.

Objectors' Exhibits A-I were accepted into the record without objection.

Also included in the record in this matter are a December 14, 1982 hydrology report on the proposed appropriation which was prepared by Dr. William E. Nork, and a review of Dr. Nork's report by Paul Lemire, Department geohydrologist. These documents were submitted to all parties as part of pre-hearing discovery in this matter, and authors Nork and Lemire were present at the hearing and available for cross-examination. A motion by counsel for the Applicant, that the Department's file on the Application in this matter be made a part of the record, was granted.

The Hearing Examiner, having reviewed the record in this matter and being fully advised in the premises, does hereby make the following proposed Findings of Fact, Conclusions of Law, and Order.

FINDINGS OF FACT

1. The Department has jurisdiction over the subject matter herein and the parties hereto, whether they appeared at the hearing or not.

2. The Application in this matter was duly filed with the Department of Natural Resources and Conservation on December 29, 1981.

3. The Applicant has a bona fide intent to appropriate water pursuant to a fixed and definite plan, and is not attempting to speculate in the water resource.

4. The Applicant intends to use water for domestic uses, commercial uses, and fire protection. These are beneficial uses of the water resource.

5. The Applicant's proposed means of diversion, construction, and operation of its appropriation works are adequate.

6. The source of supply of the water for which the Application in this matter has been made is a groundwater aquifer located in fractured bedrock. (Well Log Report by Liberty Drilling Co., testimony of Bill Osborne). This aquifer is referred to variously as "the Belt series of aquifers" (testimony of Bill Osborne) and as the "Precambrian rock aquifer" (April 6, 1983 Memorandum by Paul Lemire).

7. Arnold Dillard, spokesman for the Objectors, read into the record a portion of U.S. Geological Survey Bulletin No. 68, entitled "Geology and Ground Water Resources of the Kalispell Valley, Northwestern Montana" by R.L. Konizeski, Alex Brietkriez

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and R.G. McMurtrey (July, 1968). In this publication, the authors conclude that the bedrock aquifer in the Flathead Lake area "yields enough water for domestic use. It is not a source of large ground-water supplies." The authors state that reported yields from 24 wells in the bedrock aquifer range from 0.5 gpm to 33 gpm, with an average yield of about 9 gpm, and that the wells also have a low specific capacity, indicating that "large drawdowns are required for small yields". (Id at 41).

8. William Osborne, the well-drilling contractor who drilled the wells for which the present Application has been made, testified that the deep rock aquifer which is the water source has been very productive, with plenty of water available over and above the current appropriations and the amount applied for in this matter. Mr. Osborne has 34 years of drilling experience, and has drilled many wells into the bedrock aquifer in the Flathead Lake area.

It is Mr. Osborne's stated belief that the fractures in the bedrock which the wells penetrate almost surely are connected with a large fracture system reaching as far as Glacier National Park and the Bob Marshall Wilderness, providing "an enormous recharge area". He testified that wells similar to those involved in the present matter have shown no depletion after years of continuous use, and that there is no seasonal fluctuation in deep rock aquifers such as this one.

9. William Osborne conducted pump tests on the two wells in this matter. He testified that what has been designated as "Well 1", located in the SE¼SE¼NW¼ of Section 26, Township 27

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North, Range 20 West, was pumped continuously for 47 hours at rates up to 200 gpm, for a withdrawal of 371,000 gallons after 44 hours of pumping.

Well 1 experienced maximum drawdown at 308 ft. below the surface level of the well head. The static water level in this well is 165 ft below well head elevation.

Well 2 has a static water level of 59'8" below surface level, and experienced maximum drawdown at 268'3" below the surface level during the pump tests. There was no effect on the level of Well 1 after pumping 371,000 gallons from Well 2 in 44 hours; the distance between these two wells is 2500 feet.

Mr. Osborne stated that he thinks pumping from these wells will not affect other wells.

10. Dr. William E. Nork, consulting geohydrologist, was employed by the Applicant in this matter to review the pump test data and address the objections filed on the Application. His December 14, 1982 report states that the pump test data suggests "the rock aquifer is nearly uniformly fractured", and therefore amenable to analysis by the Theis Non-Equilibrium Equation. (Nork Report, p.2).

Using the Theis Method, Dr. Nork plotted drawdown data over a 20-year time period in order to predict the probable drawdowns which can be expected to occur at various distances from the Applicant's wells, both under a "no recharge to the aquifer" situation, and under a limited recharge situation. Dr. Nork used an average pumping rate of 100 gpm to make his calculations. (Nork Report, p.3).

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Under a "no recharge" situation, drawdown at a 1000-foot distance from the well would be 44 feet after one year and 70 feet after 20 years; at 4000 feet from the well, drawdown would be 20 feet after one year and 46 feet after 20 years. If both wells are being pumped simultaneously, the drawdown effect would be cumulative, in effect doubling the drawdown. (Nork Report, pp. 4,5).

However, Dr. Nork states that "Two lines of evidence suggest that drawdowns will not be as great as those listed above and that recharge does occur. Well testing data show that water levels in both wells recovered about 97 percent of total in a period of recovery time equivalent to the period pumped. Also, Well No. 1, a distance of about 2,500 from Well No. 2, was unaffected during the pumping of Well No. 2". (Nork Report, p.4).

Assuming a 350 acre-feet per year rate of recharge to the aquifer "from all sources within the area of influence of the pumping wells", and a "conservative" amount of recharge capture by the Applicant's wells, Dr. Nork estimates that the drawdowns which result from Applicant's pumping will only be 12.5 percent of the drawdown values estimated under the "no recharge" scenario. Drawdown would be 5.5 feet at a distance of 1000 feet from one of the wells after one year, and 8.8 feet after 20 years. Drawdown at a point 4000 feet away would be 2.5 feet after one year, and 5.8 feet after 20 years. Once again, the drawdown would approximately double if both wells are pumping simultaneously. (Nork Report, pp. 4,5).

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Dr. Nork testified that the Objectors in this matter should experience only minimal additional impact to their well water levels over and above the impact from their neighbors' wells, even assuming a confined recharge area and no gain from Flathead Lake or River.

11. Dr. Garry Grimestad, consulting hydrologist, testified that a computer analysis of the pumping data indicates that leakage is occurring in the aquifer in question, and that the aquifer therefore could alternatively be analyzed as a "leaky aquifer". He also stated that, while good fracture systems may yield the ± 30% porosity of the sand/gravel composition that many tests are based upon, a bedrock fracture system actually may have closer to 1-2% porosity. In this situation, less storage is available for recharge, and dewatering of the immediate aquifer is possible.

Dr. Grimestad testified that when he used the same storage coefficient as Dr. Nork in his analysis, he found a similar transmissivity, and drawdown values favorable to the Applicant. He stated that neither his assumptions nor Dr. Nork's assumptions may be valid, however, since no one knows yet how to accurately analyze a fracture system; although there do not appear to be any hydrologic grounds for not granting the permit, any permit in this matter should be for the lowest possible amount because of the lack of data available on the aquifer.

12. Paul Lemire, Department staff geohydrologist, reviewed Dr. Nork's geohydrology report on the Application in this matter. He stated that the estimates of transmissivity and the method of

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analysis used to calculate drawdown were adequate, although he believes that measurements of static water levels in Flathead Lake and in the Applicant's wells indicate that the Precambrian rock aquifer in question is an unconfined aquifer and that the storage coefficient value would therefore be much greater.

Using the same transmissivity values, the higher storage coefficient value, and a greater pumping rate of 127.5 gpm, Mr. Lemire calculated drawdowns of approximately half the magnitude of the drawdowns Dr. Nork calculated on the basis of no recharge, but greater than the drawdowns Dr. Nork calculated with limited recharge; in example, drawdown at 1000 feet from one of the wells after one year would be 44 feet (no recharge, Nork), 5.5 feet with recharge (Nork), or 29 feet with recharge (Lemire). (Nork Report; April 6, 1983 Memorandum from Paul Lemire to Chuck Brasen).

Mr. Lemire used a higher pumping rate in making his calculations because the Applicant's request is 410 ac/ft. per year, which could be achieved by pumping both wells continuously at 127.5 gpm. (April 6, 1983 Lemire Memorandum).

Mr. Lemire stated that he believes there is recharge from Flathead Lake, and that "in less than 180 days the cone of depression from either well would extend to the Lake..." the presented drawdowns can be considered a worst case scenario." (Lemire Memorandum, p.2). He testifed that, based on the testing, the aquifer is probably not a confined system, and that impact by the Applicant therefore should be "almost non-existent."

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12. The closest of the Objectors' wells to the wells of the Applicant is the DeMars well, located approximately 1200 feet from Applicant's Well 2. The Dillard Well is located approximately 2400 feet from Applicant's Well 2 and 3200 feet from Applicant's Well 1; the Dockstader well is approximately 2100 feet from Well 2 and 4100 feet from Well 1, the Bjork well is approximately 2300 feet from Well 1 and 4600 feet from Well 2, the Whitaker well is approximately 2100 feet from Well 2 and 2700 feet from Well 1, the Hogue spring is approximately 2800 feet from Well 2 and 3300 feet from Well 1, and the Craft well is approximately 4200 feet from Well 1 and 5300 feet from Well 2. The distance between Applicant's Well 1 and Applicant's Well 2 is 2500 feet.

13. Applicant's Well 1 has a surface (top of casing) elevation of 3058.7 feet and a well depth of 526 feet, with static water level 165'9" below the casing top. The pumping water level is approximately 310 feet below the surface.

Applicant's Well 2 has a "top of casing" elevation of 2951'2" and a well depth of 484 feet, with a static water level 58½ feet below the surface. The pumping water level is approximately 260 feet below the surface. (July 28, 1982 Memorandum from Jackola Engineering to Mike Britton, hereafter "Jackola Memorandum", and diagram prepared by Chuck Brasen for February 8, 1983 pre-hearing meeting in this matter, hereafter referred to as "Well Diagram").

14. The Dillard well has a surface elevation of 2930 feet and a well depth of 237 feet, with a static well level 65 feet below the surface. The pumping water level is approximately 230 feet below the surface.

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The Dockstader well has a surface elevation of 2931 feet and a well depth of 298 feet, with a static water level 46 feet below the surface. The pumping water level is approximately 290 feet below the surface. (There is also apparently an "old" Dockstader well, which Objectors' Exhibit H shows as having a surface elevation of 2950 feet and a well depth of 212 feet. No other information on the "old" well was submitted).

The Bjork well has a surface elevation of 2940 feet and a well depth of 195 feet, with a static water level 30 feet below the surface. The pumping water level is 125 feet below the surface.

The Whitaker well has a surface elevation of 2960 feet and a well depth of 225 feet, with a static water level 50 feet below the surface. The pumping water level is 170 feet below the surface.

The Craft Well has a surface elevation of 3020 feet and a well depth of 158 feet, with a static level 58 feet below the surface.

The DeMars well has a surface elevation of 2897 feet and a well depth of 150 feet, with a static water level of 15 feet below the surface. The pumping water level also is 15 feet below the surface.

The Hogue spring is 12 feet deep.

(Objectors' Exhibit H, well diagram by Chuck Brasen, and the Objectors' Well Log Reports indicate some discrepancies between these sources of information, mostly on the question of well surface elevations, but the discrepancies are minor.)

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15. The Applicant applied for a flow rate of 540 gpm up to a total volume of 410 acre-feet per year for the Eagle Bend Subdivision. On July 26, 1983, Mike Britton, then general manager of the Eagle Bend Subdivision, sent a letter to Chuck Brasen. (Received by the Department July 28, 1983). Mr. Britton stated that the 540 gpm figure was in excess of their needs, and requested that the Application flow rate be reduced to 453 gpm. He also stated that if the Department felt the accompanying letter (the Jackola Memorandum) explained the situation sufficiently, Crop Hail Management would be amenable to "placing the water right at the amount delivered at maximum draw down which would be 313 gpm". (Britton letter, p. 1). No request was made to amend the Application's original volume amount.

The 453 and 313 gpm flow figures were arrived at because "The maximum water that could be removed would occur when both pumps were operating at the static water level in each well and would be 453 gpm. In about a 24-hour period both wells would stabilize at the maximum drawdown for each well and the total amount of water removed at that time would be 313 gpm". (Britton letter, p. 1. Also, testimony by Thor Jackola).

16. Thor Jackola testified that the pumps to be used in Applicant's wells were selected for their capability of meeting Department of Health standards. The Department of Health requirements for Eagle Bend Subdivision water availability are much higher than the water amounts needed for domestic uses because of the necessity of having water available for fire

emergencies. The pumps must be large enough to handle maximum flow requirements for domestic and fire protection purposes. (Testimony, Jackola Memorandum, pp. 3-4).

Mr. Jackola testified that the large size of pumps needed sets a limit on the amount to which the flow rate can be reduced, and that a higher flow rate also is needed so that the pumps will stabilize before minimum pumping requirements are reached. Jackola Engineering's July 28, 1982 Memorandum states that the pump design sets 300 gpm as a minimum requirement. The Memorandum also states: "The pumps are system pressured drop controlled and sequenced. The reason for setting up the system in this fashion is that low domestic loads exist initially and during significant portions of the day after full development in relation to fire flow requirements." (pp. 2,3,4).

17. Tom Stephens, project manager for Eagle Bend, testified that the water would be used for domestic purposes, irrigation, and fire emergencies. The domestic use would be a water supply for the residential units, which Mr. Stephens estimated would be used mostly (70-80%) for second homes; vacation and retirement homes. The irrigation use would be for lawns and on two acres of golf course, December through March; the golf course has a separate water permit. Mr. Stephens testified that many areas of the subdivision would be left as "natural areas", retaining native vegetation.

18. Applicant's Exhibit No. 2 states: "The new community water system serving the Eagle Bend Development for domestic water use has the following water system minimum requirements:

1. 266 living units with an average of 3.5 persons/unit; average consumption of 150 gallons per day per person.
2. Restaurant and support facilities for an estimated 260 person capacity at an estimated average consumption of 50 gallons per person per day.
3. Clubhouse, maintenance and other potential user areas estimated at an average daily requirement of 3,500 gallons per day.
4. Fire flow storage is based on 750 gpm for á two hour duration.
5. Golf course irrigation is planned as a separate system from the domestic water system.
6. The areas which lack adequate water from storage will be boostered to provide adequate system pressure to the affected areas."

19. Average day demand for water in the Eagle Bend Subdivision is estimated at 156,000 gallons per day, based on the 266 living units with an average occupancy rate of 3.5 persons per unit and an average water consumption rate per person of 150 gallons per day. (Applicant's Exhibit 2, p. 8; Jackola Memorandum; testimony of Thor Jackola). "With the estimated other potential uses, 156,150 gallons per day was used for calculations. It should be noted that these design numbers are on the high side from experience of similar type communities such as Bigfork". (Jackola Memorandum, p. 3).

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20. Peak demand for water, "maximum day consumption", is estimated to be 1.91-1.92 times the average day, or 300,000 gallons. (Jackola Memorandum, p. 3; Nork Report, p. 2).

21. The Applicant is required by the Department of Health to show that the two wells can provide a 750 gpm flow for two hours to meet emergency fire conditions, and that each well is capable of pumping average day demand over a 16-hour period. Both wells together must be capable of providing maximum day consumption plus the two-hour "fire-flow" amount of 90,000 gallons over a 16-hour period. (Testimony of Thor Jackola, Jackola Memorandum, p. 3; Applicant's Exhibit 2, p. 8).

22. The Applicant's water system for Eagle Bend includes a 150,000 gallon storage tank or reservoir. (Applicant's Exhibit No. 2, p. 5. Jackola Memorandum, p. 1, states the tank capacity is 156,000 gallons). Well 1 pumps into the storage tank, which in turn serves the pressure booster system and the gravity system feeding into the subdivision. (Jackola Memorandum, p. 1; Applicant's Exhibit No. 2).

A minimum storage of 90,000 gallons is maintained to meet fire flow requirements. (Testimony of Thor Jackola, Applicant's Exhibit No. 2, Jackola Memorandum, p. 3).

23. No evidence was presented to explain the 410 acre-feet volume requested by the Applicant; on the Application in this matter, 399 acre-feet per year has been applied for for domestic uses, 10 acre-feet per year for commercial uses, and 1 acre-foot per year for fire protection. However, there is no apparent correlation between the volume amount and any of the requested

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flow rates, nor between the projected use figures and the volume amount. Mr. Jellison stated that the 410 figure was arrived at during the application process on the basis of advice from the DNRC Field Office.

24. The Applicant has agreed to keep pumping records of flow and volume, and to furnish the records to the Department "on a continuing basis", or upon request by the Department. (July 26, 1983 letter by Michael Britton to Chuck Brasen, testimony of Tom Stephens).

Based upon the foregoing proposed Findings of Fact, the Hearing Examiner makes the following:

PROPOSED CONCLUSIONS OF LAW

1. The Department has jurisdiction over the subject matter herein and all the parties herein, whether present at the hearing or not.

2. The Department gave proper notice of the hearing, and all relevant substantive and procedural requirements of law or rule have been fulfilled, therefore the matter was properly before the Hearing Examiner.

3. The Department must issue a permit if the Applicant proves by substantial credible evidence:

(a) there are unappropriated waters in the source of supply:
(i) at times when the water can be put to the use proposed by the applicant;
(ii) in the amount the applicant seeks to appropriate; and
(iii) throughout the period during which the applicant seeks to appropriate, the amount requested is available;

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(b) the water rights of a prior appropriator will not be adversely affected;
(c) the proposed means of diversion, construction, and operation of the appropriation works are adequate;
(d) the proposed use of water is a beneficial use;
(e) the proposed use will not interfere unreasonably with other planned uses or developments for which a permit has been issued or for which water has been reserved.

4. The domestic, commercial, and fire protection uses proposed by the Applicant are beneficial uses of water.

5. The proposed means of diversion, construction, and operation of the appropriation works are adequate.

6. There are unappropriated waters in the sources of supply, at times when the water can be put to the uses proposed by the Applicant.

7. It is more likely than not that the amount of water which the Applicant seeks to appropriate is available, throughout the period during which the Applicant seeks to appropriate.

8. The Objectors in this matter have water use rights with priority dates senior to the Applicant's priority date in this matter, and have the right to make reasonable use of their rights without adverse affect from the Applicant.

9. The Objectors' prior water rights do not entitle them to prevent all changes in the condition of water occurrence in the source. "Priority of appropriation does not include the right to prevent changes by later appropriators in the condition of water occurrence, such as the increase or decrease of streamflow or the lowering of a water table, artesian pressure, or water level, if the prior appropriator can reasonably exercise his water right under the changed conditions." M.C.A. § 85-2-401(1).

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10. There is substantial evidence to indicate that the rights of the Objectors will not be adversely affected by Applicant's proposed appropriation to the extent that they cannot reasonably use their water rights. The geohydrology report by Dr. William Nork, the reviews thereof by Dr. Gary Grimestad and Paul Lemire, and the testimony of William Osborne concerning the productivity and reliability of the source aquifer, all indicate that there is a substantial amount of water available and that the pumping of Applicant's wells should have only a minimal effect on the Objector's water availability.

11. A water right is a usufructory right, and is limited in extent to the amount of water which is being beneficially used for the purposes and places for which the permit has been granted. Such a right may not be altered or extended without prior approval by the Department, nor may water be diverted which is not needed for a beneficial use. See generally, Conrow v. Huffine, 48 M. 437, 138 P. 1094 (1914), Bailey v. Tintinger, 54 M. 154, 122 P. 575 (1912), Toohey v. Campell, 24 M. 13, 60 P. 396 (1900), Power v. Switzer, 21 M. 523, 55 P. 32 (1898).

12. There is no information in the record to show a necessity for a volume of 410 acre-feet per year at Eagle Bend. The request for 10 acre-feet per year for commercial purposes, which apparently covers the restaurant and clubhouse uses, is a reasonable one on the basis of capacity and projected uses. However, the requests for 1 acre-foot per year for fire protection and 399 acre-feet per year for domestic uses are unsubstantiated by documentation or testimony in this matter.

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13. Adequate provision has already been made for the fire flow requirement of 750 gpm for a two-hour period; the 150,000 gallon storage tank is designed to maintain 90,000 gallons of fire flow storage. Since Well 1 pumps directly into the tank, and the tank serves as a "pressure booster" and gravity fed system into the subdivision, water is immediately available for fire protection needs.

No specific permit amount needs to be granted for use of water for fire protection. An emergency situation, such as a fire, clearly enables an appropriator to make a temporary appropriation above and beyond his permit amount. Administrative Rule of Montana 36.12.105 states:

> (1) A temporary emergency appropriation may be made without prior approval from the department, but the use must cease immediately when the water is no longer required to meet the emergency...
>
> (3) The appropriator shall within 10 days of the day he begins a temporary emergency appropriation file with the Department notification... of the use to which the water was put, the dates of use, the amount of water used, and such other information as the department may require.

14. The 399 acre-feet per year request for domestic uses does not correlate with any figures present in the record. At the 156,000 gallons per day "average day demand" figure, only 175 acre-feet per year is required. At the maximum day demand figure

of 300,000 gallons per day, 336 acre-feet per year are needed; these totals cover not only domestic, but commercial and incidental uses as well. (See Findings of Fact 17-20).

15. A volume amount which equals maximum day demand on a year-round basis (300,000 gallons/day x 365 days) should completely meet the Applicant's water needs. As testified and documented, the maximum day requirement figure was arrived at by considering all of the uses for which water would be necessary. Therefore, if the Applicant is granted the maximum day amount on a daily basis, all water requirements should be covered.

Since the Applicant's project manager projects that the use of the housing units will be mostly as vacation homes and second homes, it is likely that maximum occupancy will seldom be reached, either in having all units occupied at any given time, or in having greater numbers of people present in many of the units than the estimated average of 3.5.

In addition, there should be ample water left to allow for the domestic irrigation of lawns, especially in view of the many areas of natural vegetation which will be included in the subdivision and the relatively large percentages of area which necessarily will be taken out of irrigation by the building of housing units, roads, driveways, sidewalks, and other artificially-surfaced areas.

It should also be noted that although Mr. Tom Stephens testified that water would be used on the golf course greens from December through March, no evidence was presented to show that winter irrigation is a feasible, and beneficial, use of water.

16. The proposed volume amount of 300,000 gallons per day, which equals 336 acre-feet per year, can be achieved by pumping at the amended flow rate of 313 gpm for a period of 16 hours. Since the Applicant expects to experience periods of low water use requirements (see Finding of Fact 16), this should provide a sufficiently long period of pumping, especially since the water system has an on-line storage tank. However, if it proves necessary to pump over the entire 24-hour period, the Applicant could pump at a lower rate over a longer period of time each day.

17. The record in this matter includes testimony that the pumps must have a great enough flow rate to allow them to stabilize before minimum pumping requirements are reached. (See Finding of Fact 16). The record in this matter shows that the pump design sets 300 gpm as the minimum pumping requirement. (Finding of Fact 16). The Applicant agreed to amend the Application flow rate down to 313 gpm. (July 26, 1983 letter from Michael Britton to Chuck Brasen). Although both pumps operating simultaneously are capable of removing 453 gpm at static water level, nothing in the record suggests that the pumps cannot operate at less than full capability or that, alternatively, they cannot be pumped on a staggered schedule.

Therefore, based upon the foregoing Findings of Fact and Conclusions of Law, the Hearing Examiner makes the following:

PROPOSED ORDER

Subject to the terms, restrictions, conditions, and limitations specified below, Application for Beneficial Water Use Permit No. 41432-g76LJ is hereby granted to Crop Hail Management, Inc. to appropriate 313 gpm up to 336 acre-feet per year from the groundwater source. The water is to be used for domestic and commercial purposes in the Eagle Bend Development; in the W½E½ and the E½NW¼ of Section 26, Township 27 North, Range 20 West for commercial uses, and in the W½E½ and E½NW¼ of Section 26, Township 27 North, Range 20 West for domestic uses, all in Flathead County, Montana. The period of use is January 1 to December 31, inclusive, of each year. The source of supply is groundwater, to be diverted by means of pumps from two wells; one located in the SE¼SE¼NW¼ of Section 26, and one located in the SE¼SW¼SE¼ of Section 26, all in Township 27 North, Range 20 West, Flathead County, Montana. The priority date for this permit shall be 1:48 p.m., December 29, 1981.

This permit is issued subject to the following express terms, conditions, restriction, and limitations:

A. The water rights evidenced by these permits are subject to all prior and existing rights, and to any final determination of such rights as provided by Montana Law. Nothing herein shall be construed to authorize appropriations by the Permittees to the detriment of any senior appropriator.

B. Nothing herein shall be construed to affect or reduce the Permittees' liability for damages which may be caused by the exercise of this permit. Nor does the Department, in issuing

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this permit, acknowledge any liability for damages caused by the exercise of this permit, even if such damage is a necessary and unavoidable consequence of the same.

C. The Permittee shall in no event withdraw or cause to be withdrawn waters from the source of supply in excess of the quantity reasonably required for the purposes provided for herein.

D. The Permittees shall install flow meters on their pumps, and shall keep a written record of the flow rates, volumes, and periods of diversion of all waters diverted pursuant to this permit. They shall make these records available to the Department upon request.

DONE this 14th day of September, 1984.

Peggy A. Elting

Peggy A. Elting, Hearing Examiner
Department of Natural Resources
and Conservation
32 S. Ewing, Helena, MT 59620
(406) 444 - 6612

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NOTICE

This proposal is a recommendation, not a final decision. All parties are urged to review carefully the terms of the proposed permit, including the legal land descriptions. Any party adversely affected by the Proposal for Decision may file exceptions thereto with the Hearing Examiner (32 S. Ewing, Helena, MT 59620); the exceptions must be filed within 20 days after the proposal is served upon the party. M.C.A. § 2-4-623.

Exceptions must specifically set forth the precise portions of the proposed decision to which exception is taken, the reason for the exception, and authorities upon which the exception relies. No final decision shall be made until after the expiration of the time period for filing exceptions, and the due consideration of any exceptions which have been timely filed. Any adversely affected party has the right to present briefs and oral arguments to the Water Resources Administrator, but oral argument must be requested in writing within 20 days after service of the proposal upon the party. M.C.A. § 2-4-621(1).

AFFIDAVIT OF SERVICE

STATE OF MONTANA)
) ss.
County of Lewis & Clark)

Donna K. Elser, an employee of the Montana Department of Natural Resources and Conservation, being duly sworn on oath, deposes and says that on Sept 14th, 1983, she deposited in the United States mail, Certified mail, an order by the Department on the Application by Crop Hail Management, Inc., Application No. 41432-g76LJ, for an Application for Beneficial Water Use Permit, addressed to each of the following persons or agencies:

1. Crop Hail Management, Inc., c/o Mike Britton, PO Box 1059, Kalispell, MT 59901
2. Donald E. DeMars, 560 Holt Drive, Bigfork, MT 59911
3. Warren & Verona Hogue, 245 Chapman Hill, Bigfork, MT 59911
4. Mrs. Walter C. Craft, 211 Hanging Rock Drive, Bigfork, MT 59911
5. Arnold & Iris Dillard, 215 Chapman Hill, Bigfork, MT 59911
6. Richard or Nancy Whitaker, 296 Chapman Hill, Bigfork, MT 59911
7. Fred & Noreen Bjork, 1205 Holt Drive, Bigfork, MT 59911
8. James A. Dockstader, Box 53, Bigfork, MT 59911
9. Chuck Brasen, Area Office Supervisor, Kalispell, MT (inter-departmental mail)
10. Paul Lemire, Geohydrologist (hand deliver)
11. Peggy A. Elting, Hearing Examiner (hand deliver)

DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION

by Donna Elser

STATE OF MONTANA)
) ss.
County of Lewis & Clark)

On this 14th day of Sept., 1983, before me, a Notary Public in and for said state, personally appeared Donna Elser, known to me to be the Hearings Recorder of the Department that executed this instrument or the persons who executed the instrument on behalf of said Department, and acknowledged to me that such Department executed the same.

Joan P. Gilmore

Notary Public for the State of Montana
Residing at Helena, Montana
My Commission expires 1-21-1987

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