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Department of Health and Environmental Sciences
STATE OF MONTANA HELENA, MONTANA 59601

DIRECTOR
A. G. Knight, M. D., F. C. C. P.
ACTING DIRECTOR

May 7, 1976

Re: Arrowleaf West
Teton County

- Robert W. Jensen, Box 632, Choteau, 59422
- Mary Sexton, 815 5th Avenue South, Great Falls
- Honorable Thomas Judge, Governor, State of Montana, Helena
- Citizens Advocate, Helena
- Environmental Quality Council, Helena
- Montana Fish and Game Department, Helena
- Department of Highways, Helena
- Department of Intergovernmental Relations, Division of Planning, Helena
- Department of Natural Resources and Conservation, Helena
- Department of State Lands, Helena
- Montana State Library, Helena
- Board of County Commissioners, Courthouse, Choteau
- City-County Planning Board, Courthouse, Choteau
- Mike Clasby, Sanitarian, Courthouse, Conrad, 59425
- Environmental Information Center, Box 12, Helena
- C. W. Gonder, 823 East Call Street, Livingston
- Mrs. Vel Jansen, 430 South Sixth, Livingston
- Mrs. Winifred Lucky, 420 South Sixth, Livingston
- Mary Lee Reese, League of Women Voters, 29 South Alta, Helena
- Tom Horobik, Pres., Montana Wilderness Assn., 4000 4th Ave. N., Great Falls
- Northern Rockies Action Group, #9 Placer Street, Helena
- Paul T. Richards, 902 North Park, Helena
- John Schillinger, Microbiology Department, Montana State University, Bozeman
- Concerned Citizens for a Quality Environment, c/o Ron Erickson, Chairman,
University of Montana, Missoula
- Student Environmental Research Center, University of Montana, Room 212,
Venture Center, Missoula
- John P. Duke, Assistant Vice President, Land Management, Burlington
Northern, 650 Central Building, Seattle, Washington, 98104
- Herb Anderson, P. O. Box 42, Raynesford, MT 59469
- Mike Roach, Air Quality Bureau, Environmental Sciences Division
- Don Willems, Water Quality Bureau, Environmental Sciences Division
- State-Local Relations Project, Commission on Local Government,
State Capitol, Helena
- Hugh Schaefer, 206 Ben Hogan Drive, Missoula
- Charles Jonkel, School of Forestry, University of MT, Missoula

Enclosed is a preliminary environmental review that has been prepared for Arrowleaf West, a proposed subdivision in Teton County.

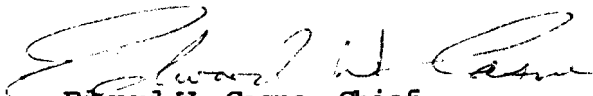
Subdivision plans and specifications have been submitted to the Department of Health and Environmental Sciences for approval of water supply, sewage disposal and solid waste disposal.

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This determination defines the project and specifies those conditions under which the proposed subdivision will receive approval without the development of an environmental impact statement. This determination is intended to insure all interested governmental agencies and public groups that this approval is being sought within the intent of both the Montana Environmental Policy Act and the Montana Subdivision laws.

This document will be circulated for fifteen (15) days at which time the department will take appropriate action based on the comments received.

Sincerely yours,



Edward W. Casne, Chief
Subdivision Bureau
Environmental Sciences Division
Phone: 449-3946

EWC:APK:ti

Enclosure

cc: Ben Wake
Terry Carmody
Tom Ellerhoff

MONTANA DEPARTMENT OF HEALTH
AND
ENVIRONMENTAL SCIENCES

May 7, 1976

A PRELIMINARY ENVIRONMENTAL REVIEW
for
Arrowleaf West
A proposed Subdivision in Teton County, Montana

Pursuant to the Montana Environmental Policy Act, Section 69-6504(b)(3); the act controlling both public and private water supply and sewage disposal for subdivisions, Section 69-5001 through 69-5009; and the act to control water pollution, Section 69-4801 through 69-4827, R.C.M. 1947, the preliminary environmental review was prepared by the Department of Health and Environmental Sciences, Environmental Sciences Division, concerning the proposed Arrowleaf West Subdivision, for which a submittal has been received requesting subdivision plat approval.

The proposed subdivision is the second phase of a two phase development. The second phase divides 149.25 acres into 37 lots, with the size of the lots ranging from 2.1 acres to 8.6 acres. The development is situated in Teton County, Sections 33 and 34, Township 25 North, Range 8 West, 24 miles Northwest of Choteau.

IMPACT ON PHYSICAL ENVIRONMENT

	Major	Moderate	Minor	None	Unknown	Comments on Attached Page
1. terrestrial and aquatic life and habitats	X	- to -	X			X
2. water quality, quantity and distribution		X				
3. soil quality, stability and moisture and geology		X				
4. vegetation cover, quantity and quality		X				X
5. aesthetics		X				X
6. air quality			X			
7. unique, endangered, fragile, or limited environmental resources					X	X
8. demands on environmental resources of land, water air and energy			X			
9. historical and archaeological sites			X			X
10. solid waste			X			X

POTENTIAL IMPACTS ON HUMAN POPULATION

	Major	Moderate	Minor	None	Unknown	Comments on Attached Page
social structures and mores					X	
cultural uniqueness and diversity		X				X
local and state tax base and tax revenue			X			X
agricultural or industrial production			X			X
human health			X			
quantity and distribution of community and personal income					X	
access to and quality of recreational and wilderness activities		X				X
quantity and distribution of employment			X			X
9. distribution and density of population and housing					X	
10. demands for government services			X			X
11. industrial and commercial activity		X				X
12. demands for energy			X			
13. locally adopted environmental plans and goals			X			X
14. transportation networks and traffic flows			X			X

Terrestrial and Aquatic Life and Habitats:

Judging from comments made by a State Department of Fish and Game official, the impact of the development on wildlife ranges from moderate to major.

Harley Yeager, Region 4 information officer for the Fish and Game Department, Great Falls, said the subdivision is in mule deer winter range and adjacent to an important Rocky Mountain bighorn sheep wintering area.

". . . Late fall, winter and spring use of the development and surrounding area may have a detrimental effect on the migratory habits of these animals," he wrote. Additionally, Yeager said the development lies within an area occasionally used by black bears and "less frequently" used by grizzly bears. The federal government has classified grizzly bears as being a threatened species in the lower 48 states.

". . . Grizzly use probably occurs during the spring after hibernation ceases," he wrote. "Prospective cabin builders should be made aware of the bears' 'trespassing' habits and the possibility of man-bear confrontations."

The state official suggested that if the development is approved, a department fisheries biologist stationed in Choteau be one of the persons consulted to help design the river crossing to the lots on the west side of the South Fork of the Teton River.

Yeager said an inspection of the site revealed that utility poles are in or near the river channel. ". . . This should be moved out of the floodplain to eliminate loss of the line due to flooding and to keep machinery out of the river channel," he said.

Neither the river nor Arrowleaf Lake, a small seasonal body of water, are significant fisheries. In the past three years both the lake and the river have been dry. The water level in both fluctuates with the seasons.

Water Quality, Quantity and Distributions

Five wells have been developed on the 320 acres. This was deemed adequate evidence that a water supply is available.

Soil Quality, Stability and Moisture and Geology

Soil profile test holes and percolation tests indicate the soils are suitable for on-site sewage disposal. Care must be exercised in locating drainfields on Lots 20 through 24 and Lots 26 through 30 in order to avoid the steeper slopes.

Vegetation Cover, Quantity and Quality:

Yeager differed with the developer concerning the status of the flora. The developer contended there was no "critical" plant communities in the proposed development, Yeager thought there was.

". . . The present native plant community of the proposed subdivision is a limber pine type with junipers, silverberry and buffaloberry and other shrubs," Yeager said. "Preservation of this plant community is needed to maintain ecological stability of the Arrowleaf area. Mule deer utilize the limber pine types for food and shelter when deep snows drive them down from nearby higher elevations. Therefore, development of the Arrowleaf West subdivision will eliminate a portion of the mule deer winter range."

The developer claimed the impact of the development will be minimized by the use of existing roads and adopting restrictive covenants which will discourage the destruction of the flora.

Aesthetics:

The development will irrevocably change the character of the land from a pastoral to a suburban setting. This will be a permanent change and although it cannot be totally

mitigated, the impact of the development can be lessened if the developer strictly enforces the proposed restrictive covenants.

The fact that power and telephone lines will be above ground, instead of below, will add to the problem of blending the development into the landscape.

Even though the character of the land will be changed, the over all impact will not be as great as it would if the development was the only subdivision in the area. However, the fact that it is the second phase of a two phase development, and the other phase is adjacent to the proposed project, decreases the impact of the aesthetic transition from a natural to a developed state.

Air Quality:

Air quality might be locally altered due to blowing dust for brief periods during home and road construction. Road dust can be temporarily controlled by wetting down the road bed.

Unique, Endangered, Fragile or Limited Environmental Resources:

The developer contends that since the development is designed mainly for "weekend recreational use" the impact on wildlife will be minimal. According to the developers, the steps which will be taken to control development will produce a setting which will not seriously disturb the use of winter range.

The Department of Fish and Game disagrees. It's impossible to speculate as to whether the subdivision will be fully developed and to what degree. However, if the subdivision is completely developed and occupancy is held to recreational use, the influence of man will still be strong enough to force wildlife to seek quieter, more undisturbed surroundings. But this process has probably started since the first phase of the development has been approved for several years.

Solid Waste:

Each property owner will be responsible for disposing of solid waste. According to the covenants for the subdivision, trash, garbage or other solid waste must be taken to another site or preferably the county sanitary landfill. A county official said the county landfill can accommodate waste from the development.

Cultural Uniqueness and Diversity:

Teton County is predominantly a rural area, with agriculture being the major business. It's difficult to say what type of person will buy lots in the subdivision, but quite likely they will be from outside the county.

It seems logical to presume that Arrowleaf West would appeal to persons living in Montana's metropolitan areas, such as Great Falls, Helena, Butte, etc. The close proximity of the development to Great Falls, the second largest city in the state, and Helena, the fifth largest, would make it convenient for persons living in either city to spend weekends at the proposed development.

If urban dwellers become the predominant owners in the development, they would bring an urban influence to the rural culture. Most likely no serious cultural conflicts would result, but there might be an air of suspicion and social separation between the groups.

Such things as access to private land for hunting, fishing and general recreational pursuits might become points of friction, however, there is enough federal land near the development to minimize such occurrences.

Last summer a hearing was held to gather public comment concerning the project. An interesting aspect of the hearing was that many of the persons who were against the development were persons who owned small parcels of land in the area. Their main concern was that the character of the land would be drastically changed by intensive development. Thus, many of the reasons which prompted them to invest in small rural acreages will be lost with the advent of more property owners.

These persons also joined permanent residents in voicing concern about the possible increase in vandalism which they contended will occur if more persons moved into the area.

Local and State Tax Base and Tax Revenue:

The county should benefit from the change in the taxable value of the land. Taxes on a plot of subdivided land are substantially higher than taxes on agricultural land.

Theoretically, the increase in taxes balances the increase in government services, such as road maintenance, schools, law enforcement, etc. However, persons attending the public review of the proposed development wondered if taxes would pay for damage to the county road which runs through the subdivision.

If the development doesn't result in an increase in school, fire fighting and law enforcement staffs the county will be able to use the taxes generated from the subdivision for other projects. But, at full development it's likely some government services will be effected.

Agricultural or Industrial Production:

The developer described the land as being "very poor grazing land." Assuming the analysis was correct, the subdivision will not be taking prime agricultural land out of production.

Access To and Quality of Recreational and Wilderness Activities

The area offers a variety of recreational opportunities. In addition to easy access to federal forest lands, outdoor enthusiasts will be close to the Bob Marshall Wilderness area, two dude ranches and for those interested in winter sports, the Teton Pass winter sports area is nearby.

The proposed development will increase the recreational use of the area, but due to the vast amount of public land, the impact will likely be moderate.

Quantity and Distribution of Employment:

Since the development is aimed at recreational or second home use, it seems likely that most of the owners will be from outside the county, thus local employment shouldn't be effected.

Demands for Government Services:

Again, the nature of the subdivision should keep the impact on government services to a minimum. If the development principally attracts people seeking weekend retreats, there should be no impact on the local school system.

The consequences of the subdivision on local law enforcement and fire fighting agencies will be minimal, according to John Howard, sheriff and rural fire chief of Teton County. He said even if full development occurred, it wouldn't warrant adding to the fire fighting or law enforcement staffs.

Industrial and Commercial Activity:

The subdivision should increase the needs for goods and services, thus benefiting the local economy--particularly in Choteau. During the building phase, local contractors and building supply firms will probably realize a temporary increase in business.

Locally Adopted Environmental Plans and Goals:

The county has a city-county planning board but does not have a master plan for Teton County. The county does not have a professional planning staff, but does receive professional advice from the State Department of Community Affairs' Planning Division.

Transportation Networks and Traffic Flows:

The Teton City-County Planning Board had a number of suggestions for improving the road network in Arrowleaf West. The board said some of the entrance roads meet the county road at too sharp an angle to conform with county subdivision regulations. The regulations call for roads to intersect at right angles or not less than 60 degrees.

In a letter to the board last summer, State Planner A. J. Richardson agreed with the county's recommendation, noting that the changes would provide intersections with better turning angles and increase visibility. The board also suggested that cul-de-sacs should be placed at the end of each dead-end road.

Another concern related to the road system within the proposed subdivisions was a bridge across the river to provide access to lots 13 and 14. The developer has agreed to build the crossing in accordance with advice from members of the State Department of Fish and Game and Soil Conservation Service.

Conclusion:

This preliminary environmental review was prepared by Tom Ellerhoff, with information supplied by Alfred Keppner, State Subdivision Bureau, Alfred L. Heckerman, Soil Conservation Service, Dr. D.C. Taylor, Univeristy of Montana, Willis J. Johns, Montana Bureau of Mines & Geology, various county and state officials, and the developer.