

APPENDIX 5 - 3

MINERAL RESOURCES

MINERAL AND AGGREGATE RESOURCES

General Analysis

Within Wallowa County several mineral and non-metallic resources have been identified as follows:

Coal	Copper	Gold	Lead
Limestone	Molybdenum	Silver	Tungsten
Marble			
Zinc			

Because much of Wallowa County is relatively inaccessible and usually has a rigorous winter climate, development of mineral resources on a commercial scale has not occurred. The mineral resources occur in three main geographic as well as physiographic features of the area: the Wallowa Mountains in the south half, the dissected plateau region in the north half, and the Snake River Canyon in the eastern portion of the County.

LIMESTONE: 1A

Location - Quality - Quantity

Large deposits of limestone occur in the Wallowa Mountains on:

01. Lostine River - Township 2 South, Range 43E, Sections 3, 4, 9.

02. Hurricane Creek - Township 3 South, Range 44E, Sections 9, 10, 15, 16.

03. And, mid-way between them at the Black Marble Quarry on Murray Creek - Township 2 South, Range 44E, Sections 19, 20.

The limestone deposits in the Wallowa Mountains will not be commercially mined in the future because the identified sites are in the Eagle Cap Wilderness. The Black Marble quarry was mined commercially prior to 1931 and reopened 1953 through 1955. The lime was mined for carbide and agricultural lime production by Pacific Carbide and Alloys Company. Since its closure in 1955; the access road has become unusable, all extraction equipment has been removed, other parcels essential to the processing have been sold to individuals, and new limestone sites have been opened in

sites have been opened in close proximity to present day markets. For these reasons and the fact that the quarry is located in an environmentally sensitive area such as adjacent to the Eagle Cap Wilderness, it will not be reopened in the foreseeable future. (Source: Moore, B.H., 1937, Nonmetallic Mineral Resources Of Eastern Oregon: USGS Bull .875, P130-132).

CONCLUSION: Due to lack of a nearby market and proximity to environmentally and aesthetically sensitive areas such as Eagle Cap Wilderness, none of the limestone deposits will be mined in the future. The limestone deposits have been designated 1-A.

GOLD, SILVER, COPPER, TUNGSTEN, MOLYBDENUM, PEAT: 1A
Location - Quality - Quantity

Gold placer deposits occur on the Imnaha River but are unproved. Bedrock values have not been determined. (Source: Libbey, 1943, Mineral Deposits In The Area Surrounding The Junction Of The Snake And Imnaha Rivers: DOGMI Short Paper II, p.9).

Copper, gold, and silver deposits occur in Snake River Canyon. Because nearly all of the Snake River Canyon through Wallowa County is in Wilderness designation, no commercial mining will take place in the future. (Source: Op. cit. Libbey)

There are relatively small occurrences of tungsten and molybdenum in the Wallowa Mountains and Snake River Canyon. Metal mining and prospecting is prohibited in both places. (Source: Weis, P.L., and others, 1976 Mineral Resources Of The Eagle Cap Wilderness And Adjacent Areas, Oregon: USGS Bull. 1385-E).

There is a known occurrence of peat (Township 2 South, Range 44E, Sections 13, 14). The site is 80 acres and ranges from 5 to 20 feet in thickness. There was some commercial production between 1965 and 1968. Because of high costs of rail and truck transportation and great distances to a market, the site will not be used for peat excavation in the future. Currently, the site is zoned for agriculture and is used accordingly. (Source: Letter dated May 25, 1967 from Norman S. Wagner to Hollis Dole of the State Department of Geology and Mineral Industries.)

CONCLUSION: Gold, silver, copper, tungsten, and molybdenum are not site or area specific. Most of their occurrences are on Federal land where commercial mining and prospecting is prohibited. (Source: Conversations With Howard Brooks, April, 1985.)

Excavation of the peat site is not economical due to cost of

transportation and distance to ready markets. None of these sites are of important quality or quantity to warrant special protection. The designation of these resources is 1-A.

LIGNITE, COAL AND ASSOCIATED MINERALS: 1B
Location - Quality - Quantity

Lignite coal is thought to occur extensively in northern Wallowa County, however, the lignite is rarely exposed at the surface. Information concerning thickness, grade, and lateral continuity can be ascertained only by surface excavations, drilling programs or examination of water-well logs. Reserve and resource tonnage cannot be adequately determined until further study is conducted. Clay minerals and silica sand occur in association with the lignite coal. Further exploration may show that extraction of one or the other would be feasible as a by product of lignite mining in certain areas.

Extraction of lignite coal is a remote possibility. Environmental impacts would be a consideration to be weighed against the economic benefits of mining if and when coal mining becomes feasible.

CONCLUSIONS: Lignite coal and its associated minerals are not site specific or area specific. Additional information is needed before appropriate policies and implementing measures for resource usage and/or protection are considered. At each plan update, the County will consider available mineral resource data. The County will adopt a policy as data becomes available, and the information will be incorporated into the land use plan

AGGREGATE SITES: 3C
Location - Quality - Quantity

Sand, gravel, and stone deposits are plentiful and located throughout the County. The sources are alluvial deposits located primarily in the Wallowa Valley and basalt rock in plateau areas. The quantity of sources has not been assessed since aggregate sites were opened or, in the case of existing sites, re-opened near construction sites. The significant aggregate sites currently having permits are listed below.

AGGREGATE SITES - LEGAL DESCRIPTIONS

<u>ID #</u>	<u>NAME</u>	<u>LEGAL</u>
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32-0001 TL3400	Wallowa County Road Dept	T1S - R44 - S36 -
32-0002 TL3400	Wallowa County Road Dept	T2S - R46 - S32 -
32-0003 TL1600	Wallowa County Road Dept	T1S - R45 - S12 -
32-0004	City of Joseph	T2S - R44 - S25 - TL1100
32-0005	Dawson Neil	
32-0009	OSHD	T2N - R44 - S11 - TL 600
32-0010	Richard H. Hagenah	R43 - S10 - TL4500
32-0011	OSHD	T1S - R43 - S10 - TL4600
32-0012	D McD Corp	T1S - R44 - S34 - TL 500
32-0013	OSHD	T2S - R46 - S31 - TL3901
32-0014	OSHD	T1S - R44 - S14 - TL2400
32-0015	D McD Corp	T2S - R44 - S03 - TL 100 S04 - TL 100
32-0016	Utah International	T5N - R43 - S12 - TL4600
32-0017	Utah International	T6N - R44 - S32 - TL3400
32-0018	Wallowa County Road Dept	T1S - R46 - S16 - TL 4
32-0019	Western Mixing Company	T3N - R44 - S11 - TL 100
32-0020	Federal Highway Adm	T1N - R47 - S19 - TL1900
32-0021	OSHD	T1N - R42 - S04 - TL2100
32-0022	William Dougherty	T1N - R42 - S11
32-0023	ODOT	T1N - R42 - S13
32-0024	McCrae	T1N - R42 - S15 R43 - S06

(T = Township - R = Range - S = Section - TL = Tax Lot)

Aggregate Sites (continued)

ID # NAME LEGAL

32-0025	Perry Johnston Pit	T1N
32-0026	ODOT	T1N - R43 - S19
32-0027	Shell Pit	T1N - R43 - S21
32-0028	Willett Pit	T1N - R43 - S23
32-0029	ODOT	T1N - R43 - S29
32-0030	Steve Wolfe Pit	T1N - R43 - S29
32-0031	Reid	T1N - R43 - S34
32-0032	Stonebrink Pit	T1N - R43 - S36
32-0033	ODOT	T1N - R44 - S13
32-0034	ODOT	T1N - R44 - S24
32-0035	Olsen Pit	T1N - R45 - S22
32-0036	BLM	T2N - R41 - S27
32-0037	Salmon Creek	T2N - R46 - S27
32-0038	Butte Creek	T2N - R46 - S20
32-0039	Grant Schaeffer	T2N - R47 - S20
32-0040	Boise Cascade	T3N - R42 - S27
32-0041	ODOT	T4N - R44 - S25
32-0042	Roger Nedrow	T5N - R43 - S01
32-0043	Wenaha Fish/Wildlife	T5N - R43 - S05
32-0044	Eden Bench	T5N - R43 - S09
32-0045	Oregon State Game Commission	T5N - R43 - S29
32-0046	ODOT	T5N - R44 - S02
32-0047	Amish Farms (County Site)	T5N - R44 - S25

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Aggregate Sites (continued)

<u>ID #</u>	<u>NAME</u>	<u>LEGAL</u>
32-0048	Amish Farms (State Site)	T5N - R44 - S25
32-0049	Buford Pit	T5N - R45 - S01

32-0050	4-0 Cattle Company	T6N - R43 - S23
32-0051	Richman (Ercel) Pit	T6N - R43 - S23
32-0052	Richman (Bill) Pit	T6N - R44 - S32
32-0053	Charles Singer Pit	T6N - R45 - S22
32-0054	Williams Pit	T1S - R44 - S02
32-0055	Riley Pit (County Site)	T1S - R44 - S14
32-0056	Riley Pit (State Site)	T1S - R44 - S14
32-0057	Roy Wise Pit	T1S - R44 - S35
32-0058	A.V. Hohn	T1S - R46 - S16
32-0059	ODOT	T1S - R46 - S25
32-0060	Grant Warnock	T1S - R48 - S23
32-0061	ODOT	T2S - R44 - S03
32-0062	ODOT	T2S - R45 - S07
32-0063	Guy Boyd Pit	T2S - R45 - S09
32-0064	ODOT	T2S - R46 - S01
32-0065	ODOT	T2S - R46 - S27
32-0066	Warren Voss	T2S - R46 - S32
32-0067	James Henderson	T1N - R42 - TL5200
32-0068	Terry Jones	T1S - R44 - TL1800
32-0069	Phillips (WC Road Department)	T2S - R46 - TL3402

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The Wallowa County Board of Commissioners, on May 12, 1999 under Ordinance No. 99-09, determined a need to establish an inventory of aggregate sites whose significance as Goal V aggregate sites has not been determined, but which are designated as appropriate sites for aggregate mining. In 1999 and 2001 four sites were added to the County aggregate list and are described as follows:

<u>NAME</u>	<u>CUP#/AMD#</u>	<u>LEGAL</u>
Jess Fitzhugh	CUP#99/02 - AMD#99/01	T1S - R45 - TL3700

David Turner	CUP#99/04 - AMD#99/03	T1S - R45 - TL3702
Charles Phillips	CUP#99/05 - AMD#99/05	T2S - R46 - TL3402
Greg Wieck	CUP#01/05 - AMD#01/04	T1S - R45 - TL1900

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The County Road Department does not anticipate any major road construction will occur before the year 2010. Annual usage for maintenance and minor betterment of the existing County road system is projected to be approximately 120,000 tons per year (88,888 cubic yards). At this rate of usage, the four sites now operated by the Road Department will be more than adequate to meet future projected needs.

CONFLICTING USES: The aggregate sites identified above are located in areas zoned for resource management. Conflicting uses would be new uses on properties adjacent to existing aggregate sites which, if allowed, may require the closure or restricted mining operation of those sites. Such conflicting uses would include new residences or new public/private facilities that attract people, such as: churches, parks, playgrounds, schools, and golf courses (the noise, dust, and glare generated by aggregate mining represents a potential nuisance to these uses). This may require closure or restricted mining operation of those sites. Such conflicting uses are the same as those identified above could affect existing sites.

The potential economic impacts of allowing conflicting uses to locate adjacent to existing sites would be the financial costs to mining operators and adjacent landowners of constructing visual, noise and dust reduction measures and costs to the mining operators of being forced to close one site and having to utilize a more distant site.

The potential social impacts of allowing conflicting uses to locate adjacent to existing sites or of allowing new aggregate sites to locate next to conflicting uses would be the general undesirability and possible non-use of the area for activities related to the conflicting uses.

If an aggregate site was forced to cease operations as a result of social pressure there would be negative energy impacts as a result of needing to find other aggregate sites farther away such as higher transportation costs.

PROGRAM TO ACHIEVE GOAL: Aggregate resources are plentiful and located throughout the County in areas zoned for resource management. In situations where conflicting use is proposed for a location

adjacent to an existing mining site, the proposed use will be subject to the conditional use process for review of compatibility with levels of noise, dust, and glare normally generated at the site during operation.