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Date: 10.29.2010
To: Assessment Committee
From: Michele Dailey, VSI Program Manager
Subject: Vital Signs Quarterly Report

General Progress Notes

A spreadsheet was created to show progress status at a glance while grouping the VSI based on overlapping work and data sources. Please see Appendix 1.

Survey: The user survey is in the process of being analyzed with the full report available in March, 2011. Demographic statistics are projected to be available in November and will be informally reported at the November 9th Commission meeting.

Visibility Monitoring Note from Rick Graw, USFS Air Resource Management Specialist, 10.25.2010:

“On May, 1, 2011, the Forest Service will cease operations of the Mt. Zion, WA IMPROVE monitor, but continue operation of the Wishram site. The Wishram site was selected to continue because of its longer operating history, detection of higher magnitude events, and proximity to the PGE Boardman coal-fired power plant.

Operation of the Wishram IMPROVE monitor will still allow the Forest Service to continue its mission to monitor haze-causing pollutants and track trends in the National Scenic Area.”

Note: Look for potential impacts of the Mt Zion IMPROVE monitor decommissioning in reporting in the forthcoming Air Quality report.

Cultural:

The inventory of new and significant archaeological and historic resources is expected to be informally reported the November 9th Commission meeting.

Staff recommends putting the measures that inventory and assess the condition of traditional cultural properties (TCPs) on hold until progress is made on similar work by the Bonneville Power Administration (BPA), US Army Corps of Engineers (USACE), and Treaty Tribes. The existing inventory of TCPs in the Scenic Area is zero; therefore there are no significant TCPs to monitor at this point in time. Furthermore, identifying TCPs involves challenges different from identifying archaeological or historic resources: they almost always span an area that includes multiple properties; some Tribes define them differently from the National Register or the Management Plan; Tribes may be reluctant to identify TCPs in order to protect them; TCPs are not identified in typical reconnaissance survey methodology (conducted by the USFS archaeologist for most new development proposals). Currently, the Treaty Tribes are working with the BPA and USACE to inventory TCPs within the Area of Potential Effect of the Bonneville and The Dalles Dams. This work will include negotiating a definition of TCPs with the Tribes. This type of work is time intensive for staff. While not all TCPs are Tribal, the VSI work on traditional cultural properties could greatly benefit from the work underway between the Tribes, the BPA, and the USACE. Please bring any concerns or questions regarding this to the attention of Jennifer Kaden and Michele Dailey.

Scenic:

A press release was sent to the Commission's media contacts to alert them of the Great World Wide Star Count (http://windows2universe.org/citizen_science/starcount/) taking place between October 29th and November 12th. In addition, approximately 35 local schools were also invited to participate. Angie Brewer was interviewed about the Star Count **by Mark Bailey of KGGB 105.5 on October 26th. The interview was aired on October 27th.**

The most recent field calibration test for the two "highly-contrasting development" VSI was October 21st. Additional calibration and testing is required. Lynn Oliver and Christine Plourde, USFS landscape architects working with Commission staff, are taking a scenic assessment course the week of October 25th. Experts from the Forest Service regional office will be invited to review the methodology once completed.

Natural:

The Aquatic and Riparian Effectiveness Monitoring Program model (AREMP) will be used to assess watershed conditions based on several metrics related to upslope, riparian, and in-channel measures. The inputs to this model come from multiple sources of modeled and field collected data. (The Western and High Cascades AREMP model flowchart can be found in Appendix II.) The final assessment relies not only on snapshot-in-time measures such as water temperature and turbidity but also on the ability of

the system to function properly. For example, it is not only important that large woody debris exists in sufficient quantities in the stream but also that the riparian area has the necessary forest structure to contribute large woody debris in the future. Sediment delivery to a stream is also dependent upon upland conditions and development such as roads or land use practices. In other words, one must determine if the processes necessary for a properly functioning stream habitat are intact.

In addition to the AREMP model inputs, we will also compile information from previous basin reports as well as available water quality indices and the 303(d) water quality assessments to provide context and other measures.

Economic:

The economic indicators reported using primarily Census data can be reported and analyzed again in 2011 when the 2010 Census results are available.

More research needs to be done to determine local indicators **that can be attributed to the geography and particular resources unique to the Scenic Area**. Preliminary research has uncovered the following programs/research:

The Mid Columbia Economic 2010-11 Comprehensive Economic Development Strategy refers to an Innovation Index tool created by the Indiana Business Research Center. This tool allows the user to assess the innovation capacity of their region using data from four areas: human capital, economic dynamics, productivity and employment, and economic well-being. See Appendix III for a list of Innovation measures.

The Ford Foundation is supporting an initiative in rural America to “improve the livelihoods of low-income and poor individuals and families”. Part of this initiative is the Wealth Creation in Rural Communities project which explores a “wealth-creation approach to rural economic development”. One of the components of this effort is a wealth index evaluation format which lists seven types of wealth that are critical to community well-being. These are intellectual, social, individual, natural, built, political, and financial wealth. The project also describes the principle of value chains that connect rural and urban areas, individuals, communities, and businesses within and beyond geographic regions. Measuring the seven types of wealth throughout these value chains may help us understand the impacts of resources within and outside the Scenic Area on the regional economy.

The Portland State Institute of Metropolitan Studies Greater Portland Vancouver Indicators project (<http://www.pdx.edu/ims/Indicators>) does not include the gorge region, but it may provide insight to measures we could use. Common themes among this and other projects include the idea that it is necessary to consider social well-being, environmental well-being, and economic well-being together. See Appendix IV for a graphic of the working list of components of economic well being.

The Penn State Community Economic Toolbox provides a way to separate national, industry, and local growth shares in a shift-share analysis. See Appendix V for an example for Hood River County.

Recreation:

Commission staff has participated in the USFS Sustainable Recreation Framework meetings. We have been able to provide tools in the form of the Future Forum visioning documents and the VSI provider and user survey data. We also provided our draft proposed long term recreation strategy (Appendix VI) as a guide to what our goals are and how they can be included in this process. Our strategy was well received and we are excited about the FS collaborative efforts.

The recreation provider survey will be distributed 11.18.2010. Reporting is expected this winter.

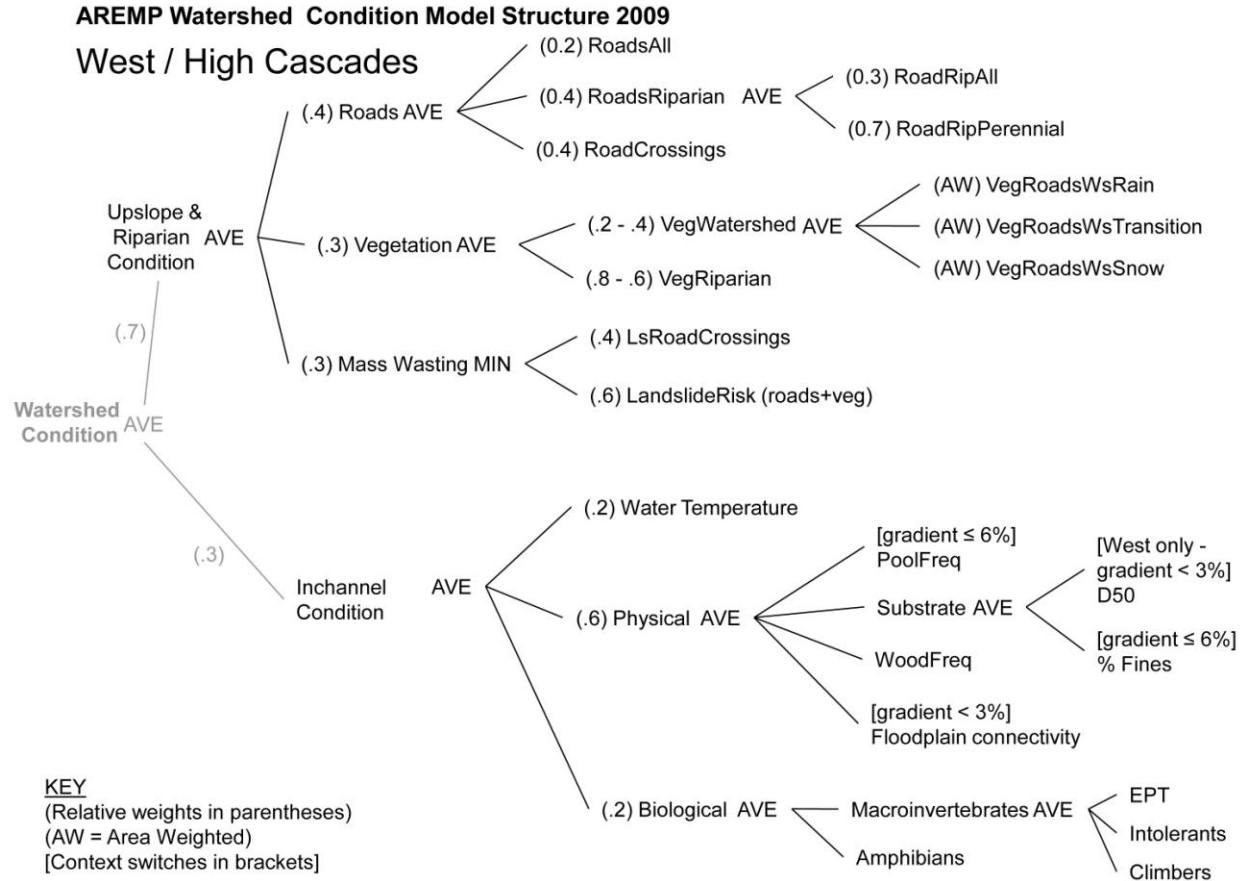
Appendix I: Summary of VSI Status

VSI designation	Paraphrase of Indicator	Status
Scenic		
1.1.a	Perception of Scenic Quality	Available March, 2011
1.1.b, 1.1.c	Development impacts (2 VSI)	Work in progress
1.1.d	Vantage point quality	Every five or so years when Google updates imagery, next update approximately 2011.
1.1.e	Litter and Graffiti	No data, low priority
1.1.f	Night Light	Minimal citizen only data, collected yearly.
1.1.g	Visibility related to Air Quality	Available Winter, 2010/2011. Based on work done by Rick Graw, USFS.
1.2.a, 1.2.b	Landscape visual quality and development impacts as seen aerially (2 VSI)	Goal is to acquire finer scale satellite imagery to classify veg and non-veg land cover*. Also need quantification of "landscape type" characteristics.
* Acquisition of this imagery is crucial to many natural VSI as well as the economic ag and forest land base VSI.		
Natural		
2.1.a, 2.1.b	Upland habitat function and fragmentation (2 VSI)	Goal is to acquire finer scale satellite imagery to classify land cover, including vegetation classes, after which this information will be used with ancillary spatial and other data to model functional flows.
2.1.c, 2.1.d	Species health and range (2 VSI)	These are not practical for a consistent regional measure due to lack of data. However, project based data can be tracked and will also be used to validate upland habitat modeling.
2.2.a, 2.2.b, 2.2.c	Surface water quality, quantity, and in-stream habitat quality (3 VSI)	In process as part of FS watershed work. Finer scale satellite imagery can help improve these VSI but coarse scale data may be used initially.
2.2.d, 2.2.e	Ground water quality and quantity (2 VSI)	Historically low priority due to staff limitations and lack of comprehensive data.
2.3.a	Air quality as measured by impact on lichen	Available Winter, 2010/2011. Based on work done by Linda Geiser, USFS.

Appendix I: Summary of VSI Status continued

VSI designation	Paraphrase of Indicator	Status		
Economic				
3.2.d	Land base in ag and forest	Goal is to acquire finer scale satellite imagery to classify land cover after which this information will be used with ancillary spatial data to classify land suitable for ag and forest. The next ag census will be conducted in 2012.		
3.1.a, 3.1.e, 3.3.a	Income, housing affordability	Can be updated once the 2010 Census data becomes available. Census summary files will be released on a flow basis from April 2011 through September 2013.		
3.1.b	Job Growth	Data is available for 2009. However, listed as low priority.		
3.1.c	Construction	Data is available for 2009. However, listed as low priority.		
Need to investigate meaningful economic indicators that can be attributed to the geography and particular resources unique to the NSA.				
Cultural				
		Archaeological	Historic	Traditional Cultural Property
4.1.a, 4.2.a, 4.3.a	Condition	Available Winter, 2010/2011		On hold, other efforts will inform this measure at a later date
4.1.d, 4.2.d, 4.3.d	Inventory			
4.1.b, 4.2.b, 4.3.b	Awareness : stakeholders	Progress limited due to funding, requires focus groups		
4.1.c, 4.2.c, 4.3.c	Awareness: residents and visitors	Available March, 2011		
Recreation				
5.1.a, 5.1.b, 5.1.d	Demand, environmental degradation, ADA standards met	Available January, 2011 through provider survey		
5.1.c, 5.2.a, 5.2.b, 5.2.c	Access, overall and site quality, user conflicts	Available March, 2011 through user survey		

Appendix II: West/High Cascade AREMP model flow chart



Appendix III: Indiana Business Research Center Innovation Index tool metrics

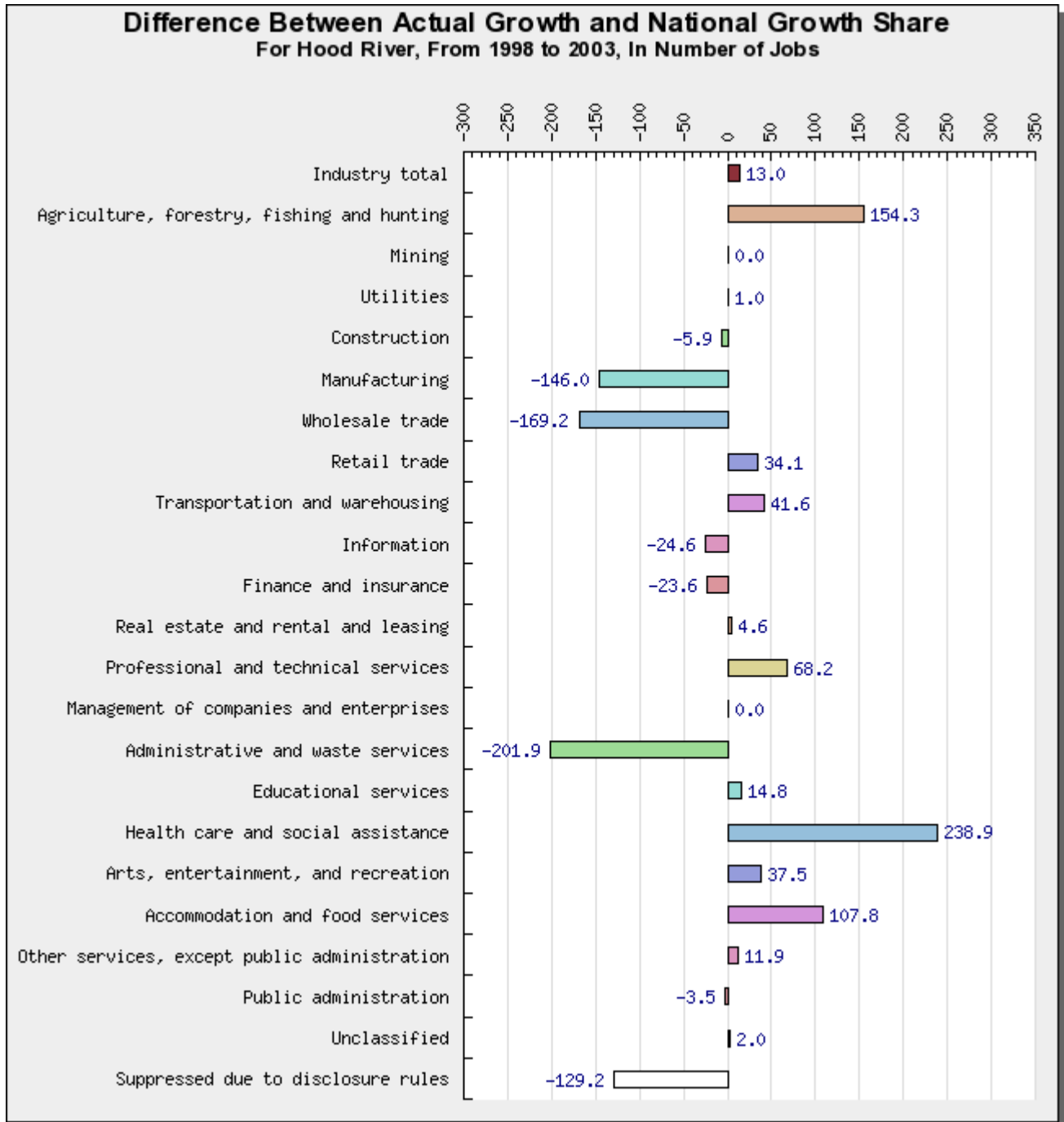
1. Economic Well-Being
 - a. Average poverty rate
 - b. Unemployment rate
 - c. Average net migration
 - d. Average growth in per capita personal income
 - e. Compensation
2. Productivity and Employment
 - a. Change in high tech employment
 - b. Job growth
 - c. GDP per worker
 - d. Average patents/worker
3. Human Capital
 - a. Educational attainment
 - b. Population growth rate
 - c. High tech employment share
 - d. Technology based knowledge occupations
4. Economic Dynamics
 - a. Average venture capital
 - b. Average private R/D
 - c. Broadband density and penetration
 - d. Establishment churn
 - e. Establishment sizes

Appendix IV: Greater Portland-Vancouver economic well-being components



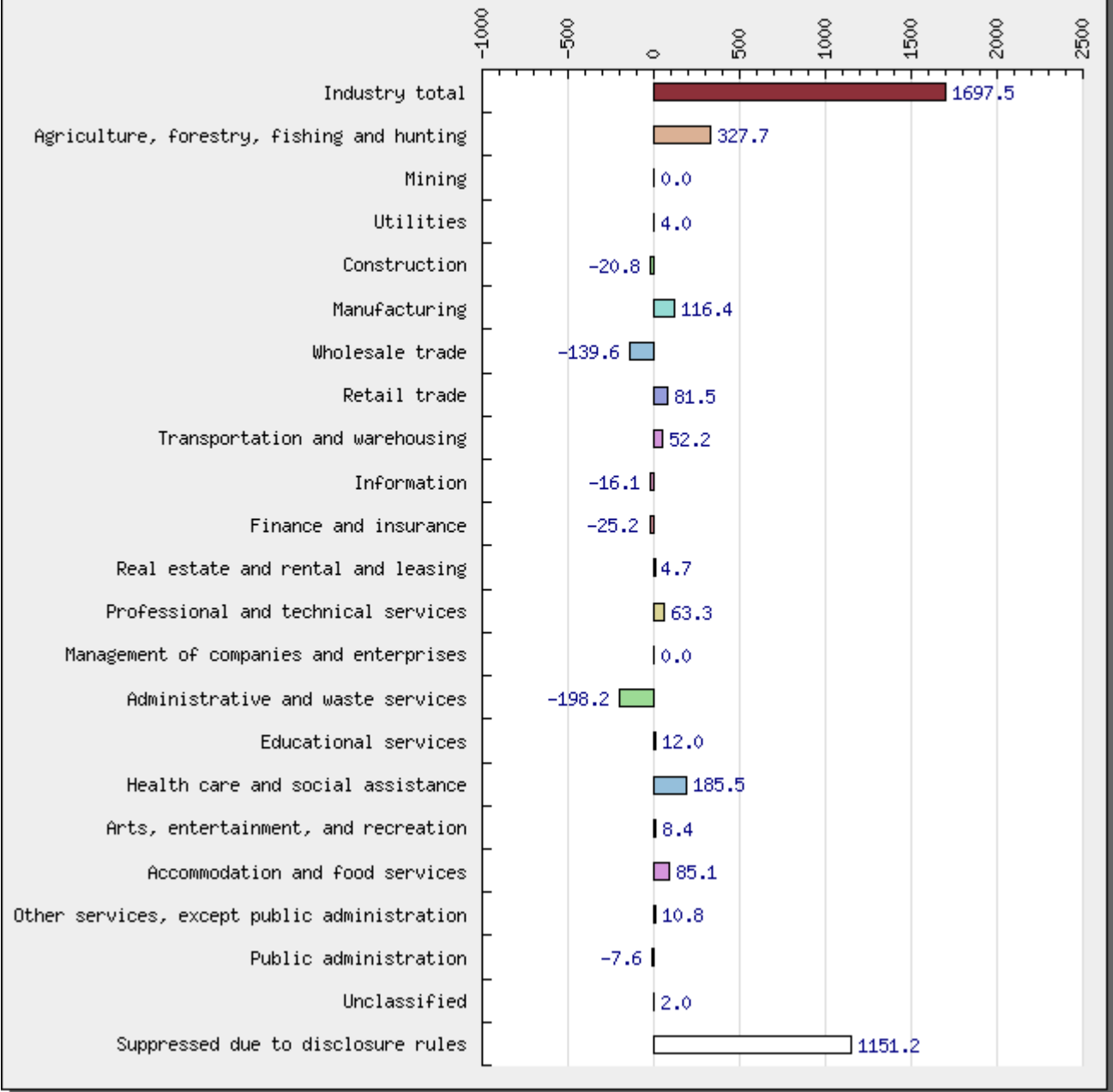
Appendix V: Community Economic Toolbox sample output for Hood River County.

(www.economictoolbox.geog.psu.edu Last accessed 10.26.2010.)



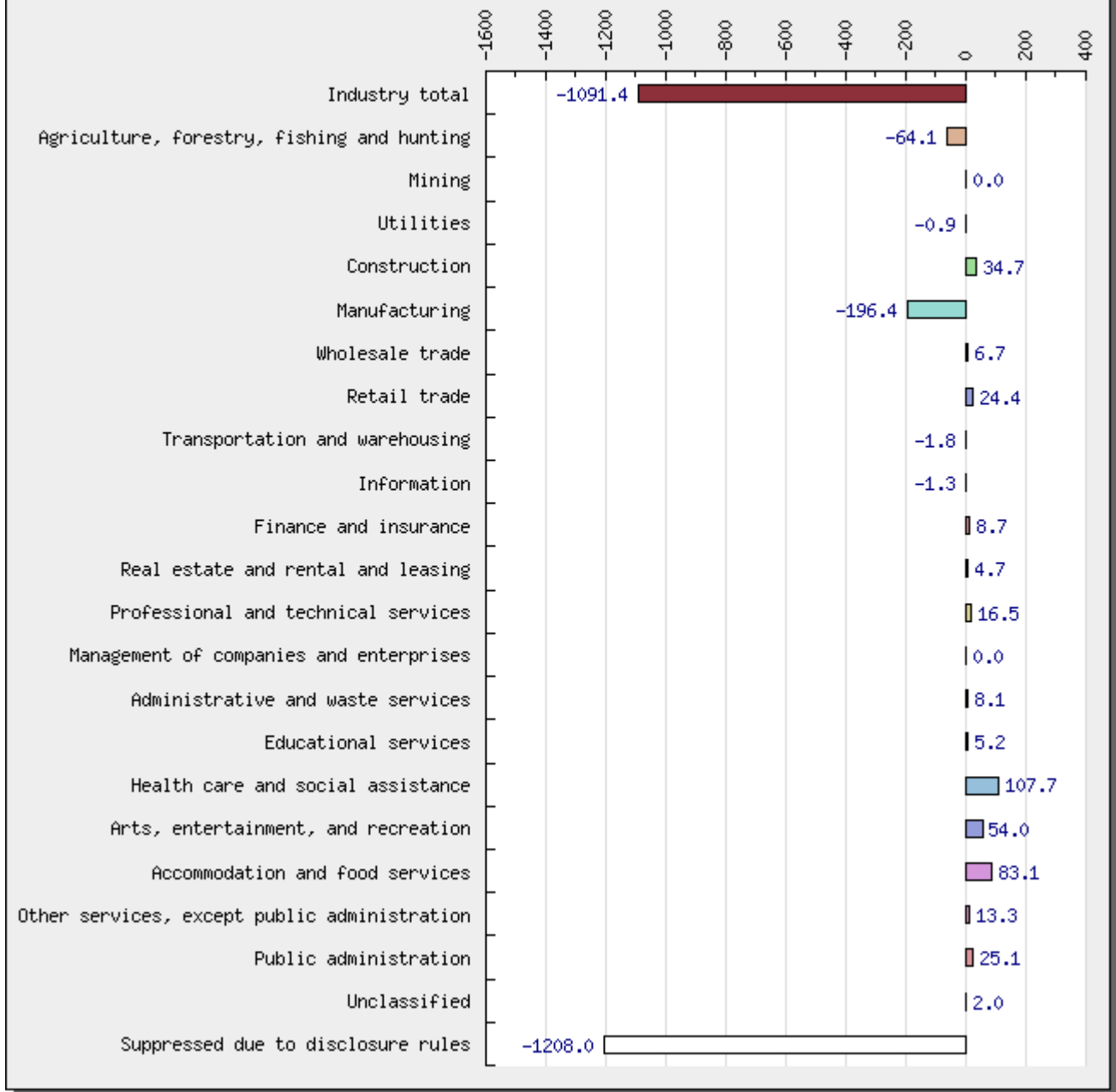
Negative values indicate that the local industry did not grow as quickly as national employment overall. Positive values indicated that the local industry grew faster than national employment as a whole.

**Difference Between Actual Growth and Industrial Mix Share
For Hood River, From 1998 to 2003, In Number of Jobs**



This graph then represents the difference between the number of jobs created locally and the number *that should have been created locally due to national economic trends.*

Difference Between Actual Growth and Local Share For Hood River, From 1998 to 2003, In Number of Jobs



Positive values represent the number of new jobs that were created in the local industry due to its relative competitive position. Negative values indicate places where the local industry lost or did not gain as many jobs due to its lack of competitiveness compared to the same *national* industry.

Essentially, this graph represents *whether local businesses are more or less competitive* than similar industries at the national level.

Appendix VI: Draft Proposed Recreation Strategy

Proposed Recreation Resource Long Term Strategy

