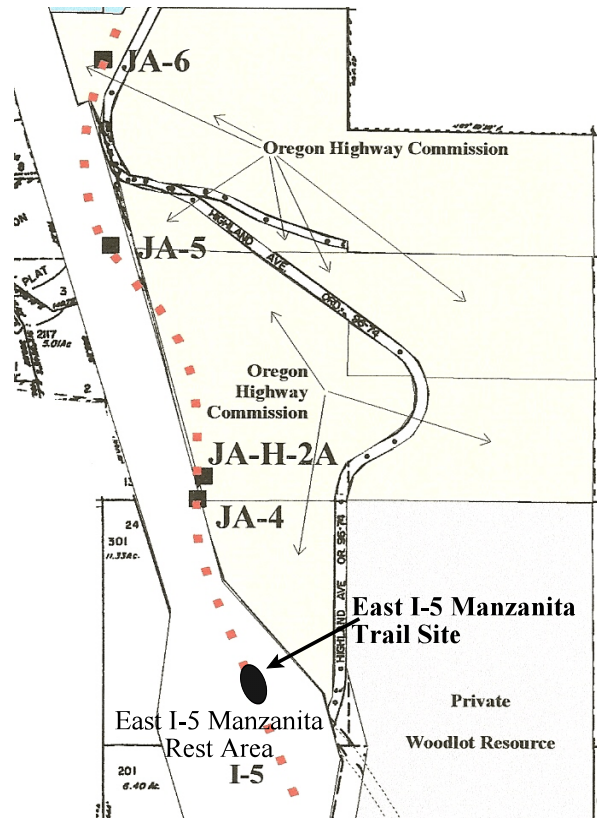


NON-SURVEYED APPLGATE TRAIL SITE: EAST I-5 MANZANITA REST AREA MET VERIFIED



Mike Walker, Member
Hugo Emigrant Trails Committee
Hugo Neighborhood Association & Historical Society



June 5, 2015

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ACRONYMS

APE	Area of Potential Effect.
ATSP	Applegate Trail Signage Project.
CEQ	Council on Environmental Quality.
DDD	Disclosure, Discussion, & Documentation.
DLC	Donation Land Claim.
GLO	General Land Office.
GPS	Geographic Positioning System.
HETC	Hugo Emigrant Trails Committee.
HLUC	Hugo Land Use Committee.
HNAHS	Hugo Neighborhood Association & Historical Society.
HNA&HS	Hugo Neighborhood Association & Historical Society.
HuNAHS	Hugo Neighborhood Association & Historical Society.
HNAT	Hugo Native American Team.
ID	Interdisciplinary Team.
JCHS	Josephine County Historical Society.
JCSA	Josephine County Sportsman Association.
JCCP	Josephine County Comprehensive Plan.
JO CO	Josephine County, Oregon.
MB	Megabyte (mega is a multiplier of 1,000,000).
MET	OCTA <i>Mapping Emigrant Trails MET</i> Manual.
MET CS	MET Compliance Standards.
MOU	Memorandum of Understanding.
MR	1853 - 1890 Military Road.
MSE	Mutually Supporting Evidence.
NEPA	National Environmental Policy Act
NCE	No Conflicting Evidence/Not Mutually Supporting Evidence.
NMSE	Not Mutually Supporting Evidence/No Conflicting Evidence.
NPOV	Neutral Point Of View.
NPS	National Park Service.
NWOCTA	Northwest Chapter, Oregon-California Trails Association.
O&C	Oregon and California.
OCTA	Oregon-California Trails Association.
OCWR	1860 - 1911 Oregon-California Wagon Road.
ODOT	Oregon Department of Transportation.
OHTAC	Oregon Historic Trails Advisory Council (i.e., previously the Oregon Trail Coordinating Council).
OMN&CH	Oregon Museum of Natural and Cultural History at UO.
OTE	Oregon Travel Experience.
OTCC	Oregon Trail Coordinating Council (i.e., became the Oregon Historic Trails Advisory Council).
PDF	Portable Document Format is a file format that has captured all the elements of a printed document as an electronic image that you can view, navigate, print, or forward to someone else.
POI	Point of Interest.
PLSS	Public Land Survey System.
RLSS	Rectangular Land Survey System.
SHPO	Oregon State Historic Preservation Office.
TNP	Terrain Navigator Pro.
UO	University of Oregon.

ABBREVIATIONS & TERMS

1870 Survey	1870 Jackson County Survey (In 1885, the Oregon Legislature adjusted the boundary between Jackson and Josephine County, making Grants Pass a part of Josephine County*).
1874 Survey	1874 Josephine County Survey(*)
1895 Map	Official Map of Josephine County, Oregon.
Affected Environment Appx.	CEQ Regulations: Sec. 1502.15 Affected environment; Section 1508.3 Affecting. Appendix.
Analysis Elements	Emigrant trail analysis elements.
Area of Potential Effect	36 CFR 800.16(d). Area of potential effects means the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking (National Historic Preservation Act of 1966; Undertaking).
Bibl	Bibliography - When used in document, it means go to the bibliography for the full citation.
Big Ugly	Potential emigrant trail sites that do not have surveys. It usually means the land between the GLO section line surveys.
Chpt.	Chapter.
Compliance	Conforming to a rule, such as a specification, policy, standard, or law.
Criteria of Review	A subjective rule that requires the researcher to exercise discretion or interpretation, or to exercise legal judgment, in determining compliance.
Diaries SubCommittee	Diaries, Journals, and Reminiscences Sub-Committee, HETC, HNAHS.
EI-5Man Site	Applegate Trail Site: East I-5 Manzanita Rest Area.
GLO SubCommittee	GLO Field Review SubCommittee, HETC, HNAHS.
<i>Hugo Neighborhood</i>	Hugo Neighborhood Association & Historical Society.
ID Team	Interdisciplinary Team.
IV Road	Illinois Valley Road of Applegate Trail - Identified on 1855 GLO Survey Map as the “Road to Illinois Valley via Van Noys Ferry” (i.e., route of the Applegate Trail from Widow Niday’s place to ferry location on Rogue River).
Jacksonville Road	Jacksonville Road of Applegate Trail - Identified on 1855 GLO Survey Map as the “Road From Willamette Valley to Jacksonville.”
Mapping Action Plan	2005 <i>Mapping Action Plan For Applegate Trail Program</i> .
MMM Committee	Mapping, Marking, and Monitoring Committee.
MET CS	MET Compliance Standards: a collective reference to the seven compliance methods to locate, verify, and map emigrant wagon trails.
MET Manual	OCTA <i>Mapping Emigrant Trails MET</i> Manual.
MET Manual Methods	MET Compliance Standards (MET CS).
MET Methods	MET Compliance Standards (MET CS).
Military Road	1853 - 1880 Military Wagon Road From Myrtle Creek to Camp Stewart.
OCTA Code	The name of the emigrant trail site (includes location information such as township, range, and section; etc.).
OR-CA Wagon Road	1860 - 1911 Oregon-California Wagon Road.
ORS 192.501(11)	Oregon law exempts from disclosure public records that include location information of archaeological sites or objects. Requirements not to disclose location information of archaeological sites or objects from public records.
OR Surveyor-General	Oregon Office of Surveyor-General of Oregon.
Point of Interest	A potential or confirmed emigrant trail site (e.g., GLO survey, DLC survey, MET verification analysis, etc.).

Sec.	Section
Standard of Review	An objective standard that requires the researcher to verify the existence or non-existence of certain facts or circumstances by observation or measurement.
Standards	Standards: Emigrant Trail Inventories and Decisions.
Standards	Compliance Standards & Criteria.
<i>Trail</i>	Applegate Trail's primary use was from 1846 - 1883.
Undertaking	36 CFR 800.16(d)(y). Undertaking means a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a Federal agency, including those carried out by or on behalf of a Federal agency; those carried out with Federal financial assistance; and those requiring a Federal permit, license or approval (Area of Potential Effect).
UO Studies	University of Oregon's <i>Pedestrian Survey of Stockpile Site South of Chancellor Quarry in the I-5 Jumpoff Joe-Glendale Project, Josephine County</i> ; 2. <i>Subsurface Reconnaissance of the I-5 Chancellor Quarry Stockpile Project, and Metal Detector Survey Within the George and Mary Harris 1854 - 55 DLC.</i>

The following three related documents are publicly available for review and comments at Hugo's web page.

1. Table 1. *Trail At East I-5 Manzanita Rest Area Site (EI-5Man Site): MET CS 4 Rank Reliability of Different Types of Evidence Used to Verify Trail Location*
2. Maps For *Non-surveyed Applegate Trail Site: East I-5 Manzanita Rest Area Met Verified*
3. Analysis Paper: *Non-surveyed Applegate Trail Site: East I-5 Manzanita Rest Area Met Verified*

Applegate Trail Inventory
Educational Resources

Hugo Neighborhood Association & Historical Society
http://www.hugoneighborhood.org/miscellaneous_research_papers_and_documents.htm

NON-SURVEYED APPLGATE TRAIL SITE: EAST I-5 MANZANITA REST AREA MET VERIFIED

INTRODUCTION

On March 24, 2015 Rene Ford, Co-Project Leader, Hugo Emigrant Trails Committee (HETC), Hugo Neighborhood Association & Historical Society (HuNAHS), asked Mike Walker, Member, HETC, if he would conduct a verification analysis of the Applegate Trail (*Trail*) site at the East I-5 Manzanita Rest Area site (EI-5Man Site) using the Oregon-California Trail Association's (OCTA's) *Mapping Emigrant Trails (MET) Manual* (Bibl) procedures of analysis and documentation.

Full Name: Non-Surveyed Applegate Trail Site: East I-5 Manzanita Rest Area Site
Common Name: East I-5 Manzanita Rest Area Site (EI-5Man Site)
OCTA Code: OR-AT-00-35-06-N/A-NN/A-JA-N/A

The early intent was for Walker to share the preliminary MET verification results with the HETC at its scheduled April 6, 2015 meeting at the Rene and Jim Ford's home. Walker replied that he would as the request was the natural extension of the work he had done researching and leading the September 26, 2014 *Trail*/Harris Donation Land Claim (DLC) field trip between Lynne L. Mager, Interpretive Specialist, National Park Service (NPS) and HETC members (Sec. II.A.5). The tour's beginning and ending was at the East I-5 Manzanita Rest Area (Maps EI-5Man 2 - 4a). On April 6, 2015 Walker gave an oral report of his verification process based on his draft report. The big difference in this site from most of the previous work by the HETC was that the EI-5Man Site had no historical Oregon General Land Office (GLO) survey. It was part of the "Big Ugly." The members of the HETC present at the meeting responded that was fine as all were of the opinion that the EI-5Man Site would meet the MET compliance standards (Sec.s I.B - I.C). Members of the HETC had been working in the area since 2006. In anticipation of a request by the NPS to sign a *Trail* signage memorandum of understanding (MOU) this summer, Walker's goal was to finalized the EI-5Man Site verification analysis by June 2015.

On April 20, 2015 Rene Ford asked Walker if he would agree to continue his EI-5Man Site verification analysis with her and Jim Ford, Co-Project Leader, HETC, HuNAHS, also developing another independent verification analysis. They would compare their independent analyses when they were both finished in June 2015. Walker responded in the affirmative (i.e., independent quality control was a proven worthy goal).

The HETC, HuNAHS (also HNAHS and *Hugo Neighborhood*), had been working on researching, mapping, and documenting the 1846 - 1883 *Trail* in northern Josephine County, Oregon for over one and one-half decades. The HETC was formally organized by the HuNAHS Board in 2005 (*Mapping Action Plan For Applegate Trail Program*, Bibl). Per the 2005 policy of the *Hugo Neighborhood*, the standards for all emigrant trail inventories and decisions would be documented using the MET compliance standards (Sec.s I.B - I.C). This policy was continued March 2012 when the Hugo Applegate Trail Marking & Mapping Project Agreement was finalized and signed by its partners: Northwest Chapter, Oregon-California Trails Association (NWOCTA); *Hugo Neighborhood*; and the Josephine County Historical Society (JCHS). Over

the years, the work of the HETC's two sub-committees had been just outstanding, first researching and installing wooden *Trail* survey markers, and later OCTA carsonite markers. Both the Diaries, Journals, and Reminiscences Sub-Committee (Diaries SubCommittee), and the GLO Field Review SubCommittee (GLO SubCommittee) are to be commended, with their work complementing each other.

By 2013 the HETC's had reached a stage of professionalism and progress that it expanded its *Trail* goals for 2014 to include marking and interpreting the *Trail* with professional signage. At that time, the *Trail* candidates for this effort included locations in both Jackson and Josephine counties. Significant *Trail* site considerations for signage in Josephine County (JO CO) were the Rogue River's Vannoy Creek and Pearce Riffle *Trail* fords, East I-5 Manzanita Rest Area or Harris cabin and DLC, Hull's Draw at Josephine County Sportsman Park area, Grave Creek Hills Pass (today's Mt. Sexton Pass), and the Grave Creek *Trail* ford and 1846 emigrant camp. In 2014 two strong candidates for interpretive panels emerged for JO CO: *Trail* at East I-5 Manzanita Rest Area and Grave Creek Hills Pass (*Applegate Trail Signage Project*, Bibl). The focus of signage in Jackson County was the *Trail* adjacent to Emigrant Lake and the pioneer Hill Cemetery.

By 2015 the *Trail* signage project at Emigrant Lake and the pioneer Hill Cemetery had moved forward splendidly (i.e., a MOU had been signed between the HNAHS, NPS, and Jackson County; \$20,000 in grants had been secured, signage was in final design stages, with expectations that it would be developed and installed in 2015).

The HETC, HNAHS, believes that trail inventories must be systematically and comprehensively documented for verification and reliability of evidence. In the best of all situations, the trail researcher examines all the relevant written, cartographic, physical, and artifact evidence, and finds them mutually supporting. This approach will foster credibility and lead to public trust and acceptance, and just as important it will result in more accurate inventories.

This paper covers six of seven MET compliance standards. It does not cover MET CS 7 "Mapping" as it was anticipated that the HETC authenticators will perform this function if the HETC approves all, and/or parts of this analysis (*Hugo Applegate Trail Marking & Mapping Project Agreement*, Bibl).

Overall, the verification analysis for the E-15Man Site was a time consuming project because of the wealth of information to consider, and a relatively easy project as the relevant evidence was all mutually supporting. There was no known conflicting or non-mutually supporting evidence. The more difficult aspect of the project was to include in the analysis the application of the MET policies and guidelines as interpreted for the verification analysis. The author believes this process exposure was just as important as the recommended verification analysis conclusion.

This verification analysis report begins with an introduction, followed by chapters on policy, relevant evidence, verification analysis, site classification, responsibilities of the HETC, and the review and comment process.

Chapter I. OCTA MAPPING EMIGRANT TRAILS (MET) MANUAL POLICY

Chapter I identifies OCTA's policies and the MET Manual compliance standards, including HNAHS policies and guidelines.

Chapter II. EXAMINE ALL RELEVANT EVIDENCE (Affected Environment)

Chapter II describes and documents all the "relevant" written, cartographic, physical, and artifact evidence (i.e., mutually supporting and conflicting evidence). The primary purpose is to describe the relevant evidence, not to interpret it.

Relevant evidence is not a description of the environment at, and surrounding, the EI-5Man Site. It is a description of the "affected environment" which is the "relevant" evidence to be considered in the next process step - EI-5Man Site location and verification analysis (Chpt. III). The descriptions shall be no longer than is necessary to understand the applicability of the verification analysis. Data and verification analyses shall be commensurate with the importance to the cardinal rules of trail verification, with less important material summarized, consolidated, or simply referenced. The researcher should avoid useless bulk in reports and concentrate on important issues. Verbose descriptions of the relevant evidence are themselves no measure of the adequacy of the verification analysis.

The author views many similarities between "relevant evidence" and the MET methods/standards used in the MET verification process, and the area of potential effect (APE) for impacts to historic properties (36 CFR 800.16(d)), and the "affected environment" of a federal environmental analysis under the National Environmental Policy Act (NEPA; 40 CFR 1502.15).

Chapter III. EAST I-5 MANZANITA REST AREA TRAIL SITE LOCATION & VERIFICATION

Chapter III's primary purpose is to analyze the relevant evidence for site location and verification. It analyzes and documents all the relevant written, cartographic, physical, and artifact evidence (i.e., mutually supporting and conflicting evidence) to locate and "verify" emigrant wagon trails. It is the heart of the MET analysis and the element most similar to the scientific method.

The author's verification analysis of the relevant evidence is his synthesis of the MET's compliance standards under the umbrella of MET CS 3, Cardinal Rules of Trail Verification (Appx. F). He acknowledges that his interpretation may not exactly match OCTA's official interpretation of a MET verification analysis. In the last couple of months his verification interpretations changed many times, and continue as he writes these words.

His goal was to emphasize the MET methods used to locate and verify emigrant wagon trails. His method tried to focus on accuracy and reliability of implementing the MET program which rests on quality research. Hopefully, his preliminary process will be critically evaluated by the HETC on its merits, and any changes needed identified, to arrive at a standardized verification

interpretation of the MET for use by the HETC in future verification analyses (Sec. I.C.5, Potential Future Guidelines). This analysis also identified multiple hypotheses for EI-5Man Site, an idea not identified in the 2002 MET.

Verification Analysis In Locating And Verifying Emigrant Trail

1. Range of Multiple Hypotheses
2. Verification Analysis
 - a) Evidence Mutually Supporting
 - b) Evaluate Applicability of Guidelines for Locating Wagon Trails
 - c) Ranking the Reliability of Evidence Used to Verify Trial Location
 - d) OCTA's Cardinal Rules of Trail Verification
3. Conclusion

Chapter IV. EAST I-5 MANZANITA REST AREA TRAIL SITE CLASSIFICATION CATEGORY

Chapter IV lists the five trail classification categories in the OCTA management scheme and comes to a recommended conclusion for the trail classification category of the East I-5 Manzanita Rest Area Site.

Chapter V. HUGO EMIGRANT TRAILS COMMITTEE

Chapter V covers the responsibility of the HETC to consider the information in chapters I - IV, especially the site verification evidence and the author's recommendation in Chapter IV, and to make an interpretive interdisciplinary (ID) team opinion, with a probability rating, including coverage of any special topics such as future studies.

Chapter VI. COMMENTS

Chapter VI identifies a chronological list of information sharing events and the opportunity to review and comment by members of the HETC.

The author fervently believes in the OCTA's policy statement that the "*The need for quality research and documentation before marking the trail cannot be overemphasized.*" He believes that research and analysis that is not documented is not available to history, and it is inadequate meeting the definition of a the sound systematic repeatable system applicable to both the scientific and MET methods.

The author acknowledges that most future MET verification analysis, with only mutually supporting evidence, will not be as comprehensive in coverage of the MET methods as this verification. The exception recommended by the author is that some version of HNAHS's policies (Sec. I.C.1) be included in all future MET verification analysis documentation.

I. OCTA MAPPING EMIGRANT TRAILS (MET) MANUAL POLICY

Chapter I identifies OCTA's policies and the MET Manual compliance standards, including HNAHS policies and guidelines.

A. Introduction

The HETC, HuNAHS has been working on researching, mapping, and documenting the *Trail* in northern Josephine County, Oregon for over one and one-half decades. In 2013 the HETC's goal for 2014 was to mark and interpret the *Trail* with professional signage. One of several candidates for professional signage was the East I-5 Manzanita Rest Area or Harris cabin and DLC (Hull's Draw at Josephine County Sportsman Park area could be an extension of the project; *Applegate Trail Signage Project* (Bibl; ATSP, p. 1). The identified history themes for the East I-5 Manzanita Rest Area interpretive signage follow (ATSP, Chpt. I, p. 1).

- Applegate Trail: 1846 - 1883
- Harris Cabin (Harris Donation Land Claim)
- Lowland Takelma Indian Conflicts

The project task did not suffer from a dearth of information. The HuNAHS's archives were rich with information from the HETC and the Hugo's Native American Team (HNAT) which had researched and web published a signification set of potentially applicable records. A substantial effort would turn out to be reviewing the existing applicable references and resources to find the pertinent "history diamonds" in Hugo's sea of history archives.

B. Policies

Locate and Verify Because the accuracy and reliability of the MET program rests on quality of research, it is important to emphasize the **methods used to locate and verify** emigrant wagon trails from the OCTA's MET Manual (MET Overview, p. 4). Documentary evidence (i.e., trail literature of all types) is the main historical resource available to the trail researcher, therefore, MET participants must have a basic familiarity with the literature of the trails.

Examine and Document All the Relevant Evidence **The MET process provides for the trail researcher to examine and document all the relevant written, cartographic, physical, and artifact evidence.** In the best of situations, they are found to be mutually supporting. It is even more important to examine and document all the relevant evidence when it is not mutually supporting. This author's position is that all evidence from all sources on the issue must be examined and documented, especially any conflicting views of other team members. This can be done in a relatively objective environment where the issue is not right or wrong, but compliance with the MET compliance standards.

1. MET Compliance Standards A foundation principal of the HETC, HNAHS, carrying out its mission is to map emigrant trails through the use of the methods and procedures identified in the OCTA's MET Manual.

- Trail Mapping Committee. October 1, 2014, 5th edition. *Mapping Emigrant Trails MET Manual*. Office of National Trails Preservation & Oregon-California Trails Association. Independence, MO.
- Trail Mapping Committee. July 2002, 4th edition. *Mapping Emigrant Trails MET Manual*. Office of National Trails Preservation & Oregon-California Trails Association. Independence, MO.

The 2002, 4th edition MET approach was evaluated by the HNA&HS in 2005 and it found a sound systematic (MET, p. 3) repeatable system of emigrant trail research, analysis, classification, mapping, and documentation. Especially refreshingly was that the MET process could be quality controlled basically through application of an abbreviated scientific method. References to the MET in this document, unless stated to be different, are to the 2002, 4th edition.

Walker, Mike, Member, HETC; Education Chair, HNAHS. Draft July 4, 2012; Updated Draft May 3, 2015. *Scientific & MET Manual Methods*. Hugo, OR.

The following are the seven MET Compliance Standards (CS) listed in the order first identified in the MET. The phrases "MET Manual Methods" or "MET Methods" are collective references to the seven MET CS to locate, verify, and map emigrant wagon trails.

- MET CS 1. Examine and Document All the Relevant Written, Cartographic, Physical, and Artifact Evidence (MET, pps. 4 - 5).
- MET CS 2. Evaluate General Principles of Trail Location & Verification (MET, p. 4).
- MET CS 3. Apply Cardinal Rules of Trail Verification for Conformance (MET, p. 5).
 - . Coherence Rule. Linear Uniformity.
 - . Corroborative Rule. Confirming Evidence, including MET CS 4.
 - . Collateral Rule. Physical/Topo Evidence, including MET CS 5.
 - . Correlation Rule. Overall Agreement.
- MET CS 4. Rank Reliability of Different Types of Evidence Used to Verify Trail Location (Part of the Corroborative Rule, Appx. F; MET, pps. 5 - 8).
- MET CS 5. Evaluate Applicability of Guidelines for Locating Wagon Trails (Part of the Collateral Rule, Appx. F; MET, pps. 8 - 11).
- MET CS 6. Classify Trail Location with the Classification Categories (MET, p. 13 - 16).
- MET CS 7. Mapping (MET, pps. 17 - 21, Appx. A)
- MET CS 1. Document All the Relevant Written Evidence (MET, p. 5).

There are many approaches given in the MET Manual to address the relevant evidence and when there is conflicting evidence (MET, pps. 5 - 8). Several of those ideas follow.

1. Though it may not apply in all situations, as a general rule the closer in time the evidence is in relation to the trail under investigation, the more reliable that evidence becomes.
2. When adequate diary/journal or physical/artifact evidence is lacking, the researcher must rely heavily on the next best source of evidence, usually later reports or maps, especially GLO plats.
3. GLO plats, despite their potential for inaccuracies and omissions, are among the most useful and available sources we have for determining the emigrant trail routes.
4. Information gleaned from trail buffs, local residents, ranchers, foresters, and government agency people can be quite useful. However, as with any piece of evidence gathered by the trail researcher, it must be rigorously evaluated and verified. Just because someone insists the trail is over here or over there does not make it authoritative. The researcher should be open to but cautious about acceptance of this kind of trail information.

2. Ranking The Reliability Of Different Types Of Trail Evidence Used To Verify Trail

Location The trail researcher hopes to find all the relevant written evidence mutually supporting. However, what does the researcher do when different kinds of evidence conflict? How does he determine the relative reliability of different types of evidence (MET, p. 5)? It is even more important to follow the MET process in examining and documenting all the relevant evidence when it is conflicting, or not mutually supporting.

- Mutually Supporting Evidence (MSE)
- Not Mutually Supporting Evidence (NMSE)

During research it is normal for the researcher to discover both types of evidence. Sometimes substantial additional MSE and/or NMSE is discovered or researched and created at a later date. Unresolved conflict may continue for years.

Conflicting evidence makes it difficult to verify *Trail* locations. The following ranking of the eight MET identified types of evidence used to verify trail location reflects the relative reliability of available evidence (MET 5 - 8; Appx. G).

1. Written eyewitness descriptions that locate trail with reasonable accuracy or exactness.
2. Written eyewitness descriptions that locate trail in a general way or direction.
3. Remaining physical, vegetative, or artifact evidence of wagon trails that correspond to either diary or plat evidence, such as traces, ruts, swales, wagon parts, differential vegetation, etc.
4. General Land Office (GLO) cadastral survey plats.
5. Topographic features that serve to confine wagon travel can aid interpretation of sketchy diary accounts and GLO plats.
6. Reports that describe the location of emigrant trails, such as federal, state, county, territorial, military, and railroad surveys undertaken in the 1850s or later.
7. Maps that show the location of either emigrant trails or possible emigrant trails.
8. Recent evidence and documentation (not necessarily in order of reliability).

The conclusion of the MET Manual states the quandary of “evidence not mutually supporting” well (MET p. 12).

These **guidelines for determining trail remnants and segments can not cover all situations** (emphasis added). Even our most experienced trail trackers encountered puzzling anomalies leading to unanswerable questions. Why has the trail vanished in some undisturbed places while in other undisturbed places – often very near, in similar terrain, and with identical soil conditions – the trail remains in pristine condition? Quite often there is no obvious explanation why no visible trace remains when it can be established beyond doubt that the trail passed that way. Why do some remaining ruts, swales and depressions appear so differently? Why are some swales twenty feet wide and several feet deep while on a segment perhaps a half mile back, in similar terrain, the trail is no wider than one wagon and consists of a shallow depression? There is much to learn about the conditions that have led to the survival of some trail traces and the disappearance of others.

Most trail segments that remain visible today have been impacted by man and nature during the post-emigrant period (emphasis added). Subsequent human impact on earlier emigrant trails may have taken the form of stage, freighting, or ranch use and even road building. Nature may have been involved, in which case the trail may not appear as an eroded trough, deep, wide swale or gully. In some sand areas, wind will have blown away loose soil and sand, leaving huge, deep, wide swales not covered with grass. Where the original emigrant trail has not had some kind of subsequent use or impact, it may have all but vanished – gradually fading into the surrounding terrain. Often, only vestiges of emigrant trails remain, barely kept visible by cattle and humans walking on them. Therefore, the vanishing character of emigrant

trails makes it all the more imperative that we locate, verify, and map them before they become indistinguishable from the surrounding landscape.

The Mapping Committee is convinced that careful adherence to the MET research and investigative procedures will lead to increased accuracy in locating and verifying emigrant trails (emphasis added). (For a very effective way of using diary/journal accounts to locate and verify emigrant trail segments, see Appendix C [of the MET], “the Composite Trail Description Method of Locating and Verifying Trails.”) Also, gathering as much information as possible before going into the field – from diaries, GLO plats, old survey, and maps, and more recent public and private surveys – will make the mapping task much more effective. However, all experienced trail mappers have learned that the more research and field verification they conduct the more questions they raise that, in turn, lead to longer hours in the field seeking verification of trails. **One should avoid jumping to quick conclusions** (emphasis added). When in doubt, contact other MET mappers and engage them in a dialogue. They may have alternative solutions and/or insights. Involving other trail experts is always helpful in resolving conflicting evidence or seemingly unanswerable questions. No single person is capable of furnishing all the answers. The more questions and alternatives that are raised and reviewed, the closer the record comes to being an accurate representation of the past.

Most importantly, the mapper should conduct field investigation and authentication with an open mind. The easy things are readily resolved; the difficult problems may require additional research and field work. The mapper should avoid going into the field with preconceptions that lead to “make things fit” especially when they don’t seem to square with the evidence. **The MET program is open-ended. It is designed to allow for doubts and to provide for corrections and additions as new materials and evidence come to light** (emphasis added). History is a matter of building upon what has gone before. It isn’t a matter of being “right.” It is more a matter of putting forth what research has indicated has the highest degree of probability. All mapping endeavors should be considered as the opening of an on-going dialogue. That’s the historical process at work.

3. Cardinal Rules of Trail Verification MET CS 1 - 5 are part of MET CS 3. (Sec.s I.B.1; Sec. III.B.2; Appendices E - G)).

4. Emigrant Trail Classification Categories **Trail Classification Categories** The following five classification categories for overland emigrant trails are designed to assess the condition of trails at the time of mapping and establish a basis on which to recommend levels of preservation and use for trails on public lands. The five categories are OCTA’s standard classifications for all emigrant trail mapping (MET Manual, pps. 13 - 15).

- Class 1 ① Unaltered Trail. It retains its original character. Should Be Preserved (MET, p. 13).
- Class 2 ② Used Trail. It retains elements of its original character, but shows use by motor vehicles. Should Be Preserved (MET, p. 13).
- Class 3 ③ Verified Trail. It is accurately located and verified, but trail traces are nonexistent or insignificant. Should Be Preserved (MET, p. 14).
- Class 4 ④ Altered Trail. It is verified, but elements of its original condition are permanently altered. May be Desirable to Preserve (MET, p. 14).
- Class 5 ⑤ Approximate Trail. It is obliterated or unverifiable and its location is known only approximately. No Preservation Recommended (MET, p. 14).

5. Mapping (MET, pps. 17 - 21, Appx. A). It is not the purpose of this analysis, verification, and documentation project to perform the required mapping. It is anticipated that the HETC authenticators will perform this function if the HETC approves all, and/or parts of this analysis (*Hugo Applegate Trail Marking & Mapping Project Agreement*).

6. Quality Research and Documentation MET CS 1. Examine and Document All the Relevant Written, Cartographic, Physical, and Artifact Evidence (MET, p. 5). Relevant documentation includes the normal standalone bibliographic elements, including a purpose of supporting or conflicting evidence for locating and verifying emigrant trails, analysis, and a conclusion (Appx. A). Standalone means the document will be understood without any other context documents available to the researcher. The following quotes from the MET illustrate the value of documentation.

- Because the accuracy and reliability of the MET program rests on quality research, it is important to emphasize the methods used to locate and verify emigrant wagon trails. Documentary evidence (trail literature of all types - eight MET identified types of evidence used to verify trail location with their rank order reflecting the relative reliability of available evidence (MET, p. 6)) is the main historical resource available to the trail researcher, therefore, MET participants must have a basic familiarity with the literature of the trails (MET Overview, p. 4).
- The following discussion on general principals, cardinal rules, ranking reliability of evidence, and guidelines for locating wagon trails focuses on the primary methods used in documentary research and investigative fieldwork. These methods are designed to impart order and discipline into the use of evidence in locating and verifying emigrant trail segments (MET Overview, p. 4).
- Any piece of evidence gathered by the trail researcher must be rigorously evaluated and verified (MET, p. 8).
- These (MET) guidelines for determining trail remnants and segments can not cover all situations. Even our most experienced trail trackers have encountered puzzling anomalies leading to unanswerable questions . . . Quite often there is no obvious explanation . . . (MET Conclusion, p. 12).
- Therefore, the vanishing character of emigrant trails makes it all the more imperative that we locate, verify, and map them before they become indistinguishable from the surrounding landscape (MET Conclusion, p. 12).
- The Mapping Committee is convinced that careful adherence to the MET research and investigative procedures will lead to increased accuracy in locating and verifying emigrant trails (MET Conclusion, p. 12).
- History is a matter of building upon what has gone before. It isn't a matter of being "right." It is more a matter of putting forth what research has indicated has the highest degree of probability. All mapping endeavors should be considered as the opening of an on-going dialogue. That's the historical process at work (MET Conclusion, p. 12).
- The following example, of the Composite Trail Description Method for locating and verifying emigrant trails, is based on a detailed study undertaken in 1994 and 1995 by Don Wiggins of Reno, Nevada . . . (Appx. C, MET Manual. The Composite Trail Description Method for Locating and Verifying Trails).

“The need for quality research and documentation before marking the trail cannot be overemphasized.”

Documentation includes the philosophy of standalone bibliographic elements for all documents, including any supporting maps, tables, appendices, etc. Compliance is especially important if these elements are separate documents not part of the main document. This is part of the MET CS 1 standard.

Documentation also includes protecting sensitive materials. For example, the HETC will not disclose location information of archaeological sites or objects from public records (ORS 192.501 (11)).

Another type of protecting sensitive materials the HETC, HNAHS, is concerned about follows. For the EI-5Man Site, it has questions about archeological inventories and clearances that may be necessary to develop an interpretive *Trail* through the study area covered by the University of Oregon (UO) studies. The potential issue is adverse impacts to archaeological site and objects and historic site from the proposed interpretive *Trail* because of the very shallow, and therefore extremely fragile archaeological site and objects, and historic site located there. The HETC also has a concern about vandalism and illegal digging once the location of the *Trail* and the Harris Cabin cairn are made available to the general public.

In summary, “*The need for quality research and documentation before marking the trail cannot be overemphasized.*” (Oregon-California Trails Association Trail Marker and Trail Marking Policies, Bibl). Research and analysis that is not documented is not available to history, and it is inadequate meeting the definition of a the sound systematic repeatable system of the scientific and MET methods.

C. HNA&HS Policies & Guidelines

The HETC, *Hugo Neighborhood*, has been working on inventorying the 1846 - 1883 *Trail* in northern Josephine County, Oregon for 15 years. It was formally organized by the HNAHS Board in 2005. Per the 2005 policy, the standards for all emigrant trail inventories and decisions would be documented using the standards of OCTA’s *Mapping Emigrant Trails Manual (MET)*. This policy was continued March 2012 when the *Hugo Applegate Trail Marking & Mapping Project Agreement* was finalized and signed by its partners.

Per the 2005 policy, all emigrant trail inventories and decisions would be documented using the standards of the *MET* (i.e., verified analysis and documentation completed prior to wooden *Trail* stakes placed). This policy was formally corroborated and continued by the 2012 *Hugo Applegate Trail Marking & Mapping Project Agreement* (i.e., verified analysis and documentation completed prior to NWOCTA carsonite markers placed). This same policy is applicable to other types of signage such as professional signage projects requiring a commitment MOU (e.g., *Trail* by Emigrant Lake at Hill Cemetery, Jackson County, Oregon, etc.). Since it probably requires fiscal commitments, a verified MET analysis and documentation must be completed prior to a commitment agreement (e.g., MOU, etc.) being placed before the HNAHS Board for approval.

1. Policies The HNAHS’s policy standards and criteria for compliance with the MET process follow. This project has had extensive study back to the year 2006, and the HETC will be using the 2014 MET only in a few instances where the analysis over the years was not based on the 2002 MET.

- Trail Mapping Committee. October 1, 2014, 5th edition. *Mapping Emigrant Trails MET Manual*. Office of National Trails Preservation & Oregon-California Trails Association. Independence, MO.

- Trail Mapping Committee. July 2002, 4th edition. *Mapping Emigrant Trails MET Manual*. Office of National Trails Preservation & Oregon-California Trails Association. Independence, MO.
- *Hugo Neighborhood*. May 14, 2005. *Mapping Action Plan For Applegate Trail Program*. Hugo, OR.
- Welch, David, Oregon-California Trails Association. October 10, 2006. *Oregon-California Trails Association Trail Marker and Trail Marking Policies*. Adopted by OCTA Board of Directors March 9, 2002. Independence, MO.
- Northwest Chapter, Oregon-California Trails Association (NWOCTA); *Hugo Neighborhood*; and the Josephine County Historical Society (JCHS). March 2012. *Hugo Applegate Trail Marking & Mapping Project Agreement*. Hugo, OR.

The HNAHS's MET compliance standards (CS) follow.

- MET CS 1. Examine and Document All the Relevant Written, Cartographic, Physical, and Artifact Evidence (MET, pps. 4 - 5).
- MET CS 2. Evaluate General Principles of Trail Location & Verification (MET, p. 4).
- MET CS 3. Apply Cardinal Rules of Trail Verification for Conformance (MET, p. 5).
 - . Coherence Rule. Linear Uniformity.
 - . Corroborative Rule. Confirming Evidence, including MET CS 4.
 - . Collateral Rule. Physical/Topo Evidence, including MET CS 5.
 - . Correlation Rule. Overall Agreement.
- MET CS 4. Rank Reliability of Different Types of Evidence Used to Verify Trail Location (Part of the Corroborative Rule, Appx. F; MET, pps. 5 - 8).
- MET CS 5. Evaluate Applicability of Guidelines for Locating Wagon Trails (Part of the Collateral Rule, Appx. F; MET, pps. 8 - 11).
- MET CS 6. Classify Trail Location with the Classification Categories (MET, p. 13 - 16).
- MET CS 7. Mapping (MET, pps. 17 - 21, Appx. A)
- MET CS 1. Document All the Relevant Written Evidence (MET, p. 5).

2. Guidelines HETC Guidelines follow.

- Rose, Karen and Walker, Mike, Co-Project Leaders, Hugo Emigrant Trails Committee. December 8, 2013. *Emigrant Trail Inventories and Decisions*. Hugo Neighborhood Association & Historical Society. Hugo, OR.

Draft HETC Guidelines follow.

- Walker, Mike, Co-Project Leader, HETC; Education Chair, HNAHS. Draft July 4, 2012. *Historical Trail Inventories Must Document Verification And Reliability of Evidence*. Hugo, OR.
- Walker, Mike, Member, HETC; Education Chair, HNAHS. Draft July 4, 2012; Updated Draft May 3, 2015. *Scientific & MET Manual Methods*. Hugo, OR.

3. Other Similar Analysis Guidelines

- Hugo Native American Team, Hugo Neighborhood Association & Historical Society. August 12, 2012. *Appx. F. Maps For Use In Identifying & Mapping Indian Trails, Indian Trail Over Grave Creek Hills: 1855*. Hugo, OR.

4. Examples of MET Verification Analyses

- Walker, Mike, Member, HETC; Education Chair, HNAHS. Draft July 4, 2012; Updated Draft May 3, 2015. *Scientific & MET Manual Methods*. Hugo, OR.
- Walker, Mike, Member, HETC. June 5, 2015. *Non-surveyed Applegate Trail Site: East I-5 Manzanita Rest Area MET Verified*. Hugo, OR.

5. Potential Future Guidelines To Be Developed

- Reliability Rankings. An area the HETC would have found helpful in the 2002 and 2014 METs was an approach, treatment, or methodology to use the MET CS 4 results (i.e., Rank Reliability of Different Types of Evidence Used to Verify Trail Location). After you have the evidence rated, what do you do with it (e.g., is one #1 evidence item of greater reliability than four #4 evidence items, six # 2 & 4 versus one #1 evidence item and one #2 evidence item, etc.). How does the researcher make sense of the rankings beyond the advice that it is the responsibility of the mapper to interpret, weigh, and balance the merits of the relevant evidence. Adapt for Western Oregon and Rogue Valley as applicable.
- Composite Trail Description and Multiple Hypothesis Method and the application of the Cardinal Rules application (i.e., change, fine-tune Section III.B Verification Analysis Process; Appx. N). What are the standards for a strict application of the cardinal rules? Adapt for Western Oregon.

In the short term the HETC and the public are the compliance reviewers for final HETC inventories. Only in a very few instances would the HNAHS Board ever become involved in the business of its committees and subcommittees; reciprocal trust is the common bond (e.g., fiscal concerns, policy compliance issues, etc.). The same is true of the NWOCTA.

D. Primary Research Methods/Overview

A foundation principal of the HETC, HNA&HS, carrying out its mission in the winter-wet, mountainous terrain of Southwestern Oregon is to research and map emigrant trails through the use of the methods and procedures identified in the OCTA MET Manual (ATSP, Chpt. I, pps. 1 - 3).

The MET is OCTA's program for locating, verifying, classifying and plotting emigrant trails based on standard research methods and procedures. Especially refreshingly to the HNAHS was that the MET's methods and products could be quality controlled through application of some elements of the scientific method. In 2005 the MET Manual was adopted by the HNA&HS when it formally created the HETC through its Mapping Action Plan.

The HETC is made up of two sub-committees: 1. Diaries, Journals & Reminiscences Sub-committee, and 2. the GLO Field Survey Sub-committee. Both sub-committees have been busy and productive.

A key idea is the GLO SubCommittee's first tier of focus for locating Applegate Trail (*Trail*) sites. This focus is through the use of accurate historical and modern government survey notes (i.e., the 1850s GLO survey notes and maps, 1850s donation land claim (DLC) survey notes and maps, and modern local Josephine County surveys and maps). With the relative scarcity of detailed diaries and/or journals (Corroborative Rule) for the Hugo region, the HNA&HS would not have formed the HETC in 2005 without the knowledge that these surveys were out there to be discovered and interpreted, especially the GLO surveys. Significantly, the importance of the 1850s GLO surveys to the GLO SubCommittee's mission is reflected in its name, "General Land Office Field Survey Subcommittee."

The crucial importance of the government surveys is further enhanced because after 150 years the *Trail* in Southwestern Oregon is usually buried beneath 6 - 12 inches of soil and debris, and there is little physical and vegetation evidence (Collateral Rule) remaining of the *Trail*. Members of the GLO SubCommittee joke that in the field what is usually seen and heard is the participant's imagination and opinion. Ruts are gone and traces are few, but a verified surveyed *Trail* site can make sense of the local terrain where there are several skid roads. Faint traces aligned along the recorded course of the *Trail* are clarified to their significance beyond a normally appearing natural swale. On occasion the mystery of a cairn could appear at the end of a GLO bearing and distance track. These verified surveyed *Trail* sites greatly facilitate the search for the *Trail* by showing the researcher where to look for reliable *Trail* traces. They solve the mystery of several traces, logging skid roads, or evolved roads in the same vicinity by determining and verifying which of the traces or evolved roads are related to the original historic emigrant wagon use.

Government surveys are also of value in hilly or mountainous terrain that is forested and has a history of logging. The MET Manual is again helpful by providing guidelines for the location of wagon trails. For example, see the following on a few guidelines for locating wagon trails (MET, pps. 8 - 10).

1. In hilly or mountainous terrain, emigrant wagons generally followed ridges or higher elevations rather than gullies, ravines, or canyons. Evidence of trails is likely to be found on ridges rather than gullies, ravines, or canyons. However, in very arid regions having hilly and/or rocky terrain, trails frequently followed the easier route of dry, sand-filled washes.
2. Trails traversing along the sides of slopes usually will not be emigrant wagon trails. Exceptions might be where there was either no alternative to a steep slope or the slope angle was not steep enough to make wagons unstable.
3. Generally, wagons ascended and descended on the spine of a ridge rather than up or down gullies.
10. In hard packed, gravel soil, wagon traffic may have left a distinctive "gravel road" appearance that has withstood well the impact of erosion and weathering.
13. Old wagon traces will often display different vegetation growth than on adjacent area. This can be evident in grass, brush, or forested areas. On the edges of trails, where softer soil has built up, more vigorous growth can occur leaving a distinctive vegetative border. On trails with hard, compacted soil, little or only stunted growth will occur. And in some cases, where a swale has acted as a rain collector, a line of trees or high shrubs may have grown up over the years.

In this case, the ground around the EI-5Man Site is relatively flat. It is estimated that it was an oak savanna in 1846 (Sec. I.D.3). Other indicators can be either helpful or misleading in locating emigrant wagon trails. A few examples follow (MET, pps. 10 - 11).

6. In forested areas, blazes or scars on trees may or may not indicate a nearby wagon trail.
7. Where emigrants took their wagons twisting and turning through dense forests, wagon wheel hubs rubbing against trees may have left scars at hub heights (anywhere from 1½ to 2½ feet from the ground. Here, too, a core sampling is needed to verify the age of the scar before concluding it was caused by wagons.

Of significance was the focus on the specific 1850s GLO and DLC surveyed sites (i.e., first tier of focus for locating *Trail* sites), not on evidence along the GLO mapped route of the trail between surveyed sites at section lines. The HETC has historically considered the "average" one mile distance between section lines of GLO surveys as professional artwork identifying the general location of the *Trail*. In the future the HETC expects to spend more time on these big

ugly unknown grey areas. Instead of being anomalies, the following vegetation, topography, and artifact examples will become more common place: 1. road trace and vegetation differential NW of Soldier Creek JA-2A; GLO bearing and distance method located Harris cairn; 3. ox yoke chain artifact found at OR-JA-00-35-06-2 Silvestri property; 4. *Trail* swale of a parallel set of ruts or “Two-track” north east of Dickerson’s Corner 2 IV-7A, along the NE and SW course on both sides of Dickerson’s Corner 1 IV-6A; and 5. evolved *Trail* at original GLO route corroborated by later government surveys - Applegate Trail North Sexton Pass *Trail* segment.

Conflicting evidence for *Trail* sites can make it difficult to verify *Trail* locations. In the best of situations, the *Trail* researcher examines all the relevant written, cartographic, physical, and artifact evidence, and finds them mutually supporting (MET Manual pages 4 - 12). Types of evidence used to verify trail location with their rank order reflecting the relative reliability of available evidence are identified in the MET (MET, pps. 5 - 8).

In summary, the HETC and HNA&HS are enthusiastic supporters of the MET even though it does not solve all the situations of conflicting evidence. The MET Manual reminds us that even OCTA’s most experienced trail trackers encounter puzzling anomalies leading to unanswerable questions. However, team work such as the HETC GLO SubCommittee’s efforts are hard to compete with in numbers, experience, passion, and the dedication to document their application of MET methods. The quality control of the interdisciplinary (ID) team takes more time, but is impossible to beat. We move forward when we leave a documented history trail for those *Trail* researchers that follow.

II. EXAMINE ALL RELEVANT EVIDENCE (Affected Environment)

Chapter II describes and documents all the “relevant” written, cartographic, physical, and artifact evidence (i.e., mutually supporting and conflicting evidence). The primary purpose is to describe the relevant evidence not to interpret it for the later verification analysis in Chpt III (Introduction). It examines and documents (MET CS 1) all relevant evidence to the EI-5Man Site’s surrounding areas relevant to linear uniformity. It alphanumeric identification uses the 2002 *USGS Quads & Point of Interest Codes* (ATSP, Chpt. II, p. 1).

- GLOSubCommittee, HETC, HNAHS. Draft Being Updated January 11 & 23, 2006; July 2, 2007; March 5 & October 6, 2010. *USGS Quads & Point of Interest Codes*. Brochure 5A in Emigrant Trails Series. Hugo, OR.
- Brochure 5a. *Hugo Emigrant Trail Map Quads & Points of Interest Codes*. GLOSubCommittee, HETC, HNAHS. http://www.hugoneighborhood.org/Applegate_Trail_Program.htm.

Full Name: Non-Surveyed Applegate Trail Site: East I-5 Manzanita Rest Area Site
Common Name: East I-5 Manzanita Rest Area Site (EI-5Man Site)
OCTA Code: OR-AT-25-35-06-N/A-N/A-JA-N/A
Coordinates: Latitude & Longitude (south side of north bathroom)
42° 31' 06" North Latitude
123° 21' 81" West Longitude

OR-AT-25-35-06-N/A-N/A-JA-N/A

OR = Oregon; AT = Applegate Trail; 25 = quadrangle number; 35 = Township 35 South; 06 = Range 6 West; 11/14 = section line between sections 11 and 14 (N/A = Not/Applicable); N = an east GLO surveyed direction on the section line (N/A = Not/Applicable); JA = road from Willamette Valley to Jacksonville; POI of the JA (N/A = Not/Applicable). Not part of the code is the common name for the POI = EI-5Man Site.

The foundation for Hugo’s map quad codes is the OCTA MET program. Its 2002 coding system comprises six letters-numbers: the first two designate the state involved, the second two designate the trail name, and the third two are the sequential number of the quadrangle for the trail within the state. The 19 letter/number POI identification code serves several purposes.

1. Database. Every map can be entered into a computer database using the code and quad name, plus any additional relevant information. This will provide a means of storing, cataloging, and retrieving POIs that is compatible with OCTA’s MET program.
2. Filing. Each completed map can be filed for ready reference and accessed when corrections and revisions are made and when users request photocopies for research or preservation purposes.
3. Monitoring. With the map code, the map database can serve as a ready means to monitor the status of the *Trail* in the Hugo region.

The new 2014 MET Manual (MET 2014, p. C-10) has a different procedure for identifying the full name per the mapping process with Terrain Navigator Pro. The full name includes the township (three digits and direction), range (three digits and direction), section number, waypoint number from GPS/field notes, symbol, and recorder’s initials. This is a transition process between old and new MET direction as the evidence for the EI-5Man Site was developed over a number of years starting in 2006. For the purposes of this analyses and documentation, the 2002 *USGS Quads & Point of Interest Codes* (Bibl) are used.

A. Mutually Supporting Evidence

The HNAHS has several committees and sub-committees providing relevant evidence to the question of whether the EI-5Man Site is a verified *Trail* location.

- ***Hugo Emigrant Trails Committee***
Hugo Neighborhood Association & Historical Society
http://www.hugoneighborhood.org/BROCHURE_2_Trail_Committee_022406.pdf
- ***General Land Office Field Survey Sub-Committee***
http://www.hugoneighborhood.org/BROCHURE_10D_GLO_SubCommittee_030410.pdf
- ***Diaries, Journals & Reminiscences Sub-Committee***
http://www.hugoneighborhood.org/BROCHURE_11B_Diaries_SubCommittee_081411.pdf
- ***Hugo Native American Team***
Hugo Neighborhood Association & Historical Society
http://www.hugoneighborhood.org/BROCHURE_NA1B_Hugo_Native_American_Team_041912.pdf

1.1 Written Quotes: Diaries, Journals, or Reminiscences for Applegate Trail: 1846 - 1883 (ATSP, Chpt. III, pps. 1 - 6). The term “quotes” in this document means quotes from diaries, journals, or reminiscences applicable to the EI-5Man Site and/or south to the Rogue River or north to Grave Creek from the location of the rest area. A brief summary of *Trail* references and sources for this document follows.

1845	Pioneers' Guide for the Westward Traveler - The Emigrants' Guide to Oregon and California by Lansford Hastings
1846 & 1847	Wagon Train Leader Levi Scott's Reminiscences (<i>From Independence to Independence</i>)
1846	Emigrant Virgil Pringle Diary
1846	Emigrant Tolbot Carter Diary
1846	Jesse Applegate Letters
1846	Lindsay Applegate: Notes and Reminiscences of Laying Out and Establishing the Old
1846	Emigrant Road into Southern Oregon
1847	Emigrant Lester Hulin Diary
1848	Waybill of Applegate Trail
1854	Tabitha Brown Letter
1855	Lieutenant Henry L. Abbot
1855 -1866	Oregon General Land Office Surveys
1997	<i>Until the Last Arrow</i> by Percy T. Booth

- **1846 Emigrant Virgil Pringle Diary**

Thursday, October 15 – Move down the river [south of Rogue River] 10 miles and camp. Plenty of Indians about, but none come near. Lose some cattle by them 10 miles.

Friday, October 16 – Cross Rogue River [near Vannoy Creek] about 4 miles from last camp. Ford good. Camp on right bank.

Saturday, October 17 – Travel 8 miles, road good and a good camp [near Jumpoff Joe Creek] which is not common, the country being mostly burnt. 8 –2,218 miles.

- **1847 Emigrant Lester Hulin Diary**

T. 19th. In about one M we crossed the [Rogue] river and left it after following it about 50 MS in all. Passed among the bluffs and camped [near Schoolhouse Creek] after a distance of about 12 Ms. Some of the Indians are yet following us. Their room is better than their company.

W. 20th. Upon leaving camp we soon came to a fine creek [Jumpoff Joe Creek]. Then bad roads ensued (rough hilly and sidling) but by night we were in a valley [Sunny Valley] with good camping ground at hand. Distance 8 Ms.

The bad roads identified in the 20th entry of Hulin (rough, hilly, and sidling) were over Grave Creek Hills Pass/Sexton Mt. Pass. Sidling was a term emigrants used to describe wagons side hilling on steep slopes which emigrants tried to avoid for fear of tipping over. There is a difference of opinion between members of the HETC whether the North Oxbow fits the rough, hilly, and sidling description (Appx. N).

Thurs 21. Today we had bad roads and reached a good camping ground at dark. Distance 9 Ms. [north of Grave Creek] (1847 Emigrant Lester Hulin Diary).

The 21th entry of Hulin about bad roads was after leaving the Grave Creek camp. The “bad roads” became nightmarishly worse in the dreaded “*Canyon*” to the north.

In summary, relevant quotes for the specific EI-5Man Site are non-existent.

1.2 Written Information: Harris Cabin & Harris Donation Land Claim Along Applegate Trail

The proposed East I-5 Manzanita Rest Area interpretive signage is located on the Harris DLC, very close to the old 1855 Applegate Trail, and within a long baseball hit for a home run of the 1855 Harris cabin.

a) *Harris: Hugo Pioneers* Harris: *Hugo Pioneers* (Bibl)

1853. Oregon Trail. George W. Harris and his family had crossed the plains from Tennessee to Oregon in 1853.

1855. The Harris family moved from the Willamette Valley to their DLC on what would become Harris Creek in 1855 (1854?, Appx. D4).

1865 Harris DLC. From 1855 the Harris family proved up DLC Patent No. 70 for 320 acres in Josephine County, Oregon. The patent was issued December 9, 1865 to George W. Harris Heirs of Harris and Mary Ann Harris.

The *Trail* was in the eastern portion of the DLC. It continued north from the DLC paralleling I-5 to Hull’s Draw at the entrance of the Josephine County Sportsman Park, through the park, and to the northwest over I-5 and down Schoolhouse Creek.

A significant portion of the DLC was open wetlands of the upper Harris Creek drainage. The Harris ranch's location had a reason: natural sub-irrigation for naturally open pasture during the winter, spring, and early summer. Naturally irrigated pasture was crucial prior to pumps, electricity, and sprinkler irrigation.

Thirty-five year old George W. Harris was killed by Takelma on October 9, 1855 during the Rogue Indian Wars. His wife, Mary Ann, was able to drag her husband inside their cabin and barricade the door. The courageous woman, though never having used a gun before was instructed in its operation by her dying husband, and held off the opposing combatants throughout that day. The next day she and her 11-year old wounded daughter, Ann Sophia, were rescued by a small group of U. S. Dragoons from Fort Lane along the Jacksonville Road of the *Trail*. She had lost her husband, her 9-year old son, David, and a school teacher, Frank Reed, who lived with them and worked part time on the farm as a hired man.

b) *Early Pioneer Family along the Southern Route* *Early Pioneer Family Along the Southern Route* (Bibl)

George W. and Mary Ann Harris and family crossed the plains by wagon train via the old Oregon Trail arriving in Oregon August 31, 1852. They spent their first winter in the Willamette Valley. The following spring, George set out in search for his dream homestead. They made a donation land claim just north of the Manzanita Rest Stop on Interstate 5. George was born 1820 in Jefferson County, West Virginia and married Mary Ann on February 9, 1843 in Missouri.

1.3 Written Surveys

1.3a) PLSS (1785), GLO (1812), & DLC (1850) With the acquisition of the Oregon Country in 1846, the U.S. was faced with an enormous challenge to administer what had become a significant part of the nation's federally owned public domain. The responsibility rested with Congress, but a key federal agency, the U.S. GLO, would be summoned to administer, survey, and initiate disposition of the public domain lands (Appendices K, L, & M).

The 2,200-mile historic east-west wheeled wagon route and emigrant trail that connected the Missouri River to valleys in Oregon is epitomized by the Oregon Trail, a significant part of the great westward migration. The Oregon Trail was laid by fur trappers and traders from about 1811 to 1840 and was only passable on foot or by horseback. After that came wagons from various starting points whose routes converged and led to rich farmlands west of the Rocky Mountains.

In 1843 the settlers of the Willamette Valley drafted the Organic Laws of Oregon organizing land claims within the Oregon Country. From the early to mid-1830s the Oregon Trail and its many offshoots, including the Applegate Trail, were used by about 400,000 settlers, ranchers, farmers, miners, and businessmen and their families. Use of the trail declined as the first transcontinental railroad was completed in 1869, making the trip west substantially faster, cheaper, and safer.

The Oregon Territorial Act of 1848 contained no provision to grant or sell lands and was silent regarding preemption settlement, but the DLC of 1850 came to the rescue to create the Office of Surveyor-General of Oregon, provide for the public land surveys, and transfer public lands to the settlers. Among its major achievements were the legitimization of land claims made by settlers prior to 1850 and the reward and inducement for additional immigration to Oregon. The act also initiated the GLO's direct involvement in the Oregon Territory.

The DLC Law was significant in shaping the course of Oregon history. By the time the law expired in 1855, approximately 30,000 white immigrants had entered Oregon Territory, with some 7,000 individuals making claims to 2.5 million acres of land. The overwhelming majority of the claims were west of the Cascade Mountains. Oregon's population increased from 11,873 in 1850 to some 60,000 by 1860.

The GLO interpreted the DLC law to require settlers to have their claims surveyed as part of the notification claim requirement to have an accurate description of the land. However, many settlers did not have their claim boundaries "definitely settled at the time of survey," saving money instead by relying on the official GLO section surveys to locate their claim lines (*Chaining Oregon*, pps. 100 - 102, 104, 211, &124). This could only occur for claim locations where aliquot parts of the PLSS (e.g., GLO surveys, etc.) could be used. Aliquot part – The standard subdivisions of a section, such as a half section, quarter section, or quarter-quarter section. No DLC survey had been found so far for the Harris DLC and the DLC can be identified with the aliquot part method. Therefore, there is probably no survey for the Harris DLC.

The U.S. recognized the need to provide for the orderly settlement and disposal of public domain lands as early as 1785 when the Rectangular Land Survey System (RLSS), or Public Land Survey System (PLSS), was developed and used in the United States to plat, or divide, real property for sale and settling. By 1812, these responsibilities were all placed in the hands of the GLO, a newly created agency within the Treasury Department. In 1849, the GLO was moved to the U.S. Department of the Interior (*Chaining Oregon*, Bibl, p. 3).

The GLO's headquarters was in Washington, D.C., and field offices were established wherever there was a significant requirement to survey lands and accommodate the needs of settlers. On May 5, 1851, the first surveyor-general of Oregon, John B. Preston, opened a GLO survey office in Oregon City and initiated the Willamette Meridian rectangular survey.

By the time Preston and the last of his surveyors left in 1855, the western interior valleys of Oregon and Washington lay measured in the townships and sections of the PLSS. During four years in Oregon, surveyors James Freeman, William Ives, Butler Ives, George Hyde, and Joseph Hunt (and in the Rogue Valley, Wells Lake) boosted the territory's population by enabling the legal establishment of DLCs and helping establish commerce, both precursors to the stability and increased confidence that led to Oregon's statehood in 1859 (*Chaining Oregon*, p. 4).

The 1851 - 1855 GLO surveys for western Oregon turned out to be the most credible primary evidence available to the emigrant trail researcher. This was because the early GLO surveyors in Oregon were credible, including the 1855 surveying of George Hyde and Wells Lake in the Rogue Valley (Appx. I). The 1851 - 1855 GLO surveyors were honest with no hint of fraud or incompetence. The Rogue Valley, including the IV Valley was surveyed 1854 - 1855.

The 1851 - 1855 GLO surveys were also timely by satisfying one of the most important MET rules for “Ranking The Reliability Of Different Types Of Trail Evidence Used To Verify Trail Location” (Chpt. I; MET, pps. 5 - 8).

Though it may not apply in all situations, as a general rule the closer in time the evidence is in relation to the trail under investigation, the more reliable that evidence becomes (emphasis added, MET p. 5).

For all practical purposes the majority of the significant route changes to the *Trail* in northern JO CO occurred after 1855 for three major reasons.

1. It was a hostile country until the Native Americans were removed from the Rogue Valley in 1856 (Sec. II.A.10). The huge majority of emigrants were traveling one-way to the Willamette Valley and were not building better roads (*Applegate Trail's Open Valleys & Wagon Routes In Hugo Region: 1846 - 1855*; Bibl).
2. Land ownership was not completely certain until after the first GLO land patent in Oregon was issued in 1858 (Appx. M4). In the main, settlers did not work realigning roads to property lines until they had guaranteed ownership.
3. After year-around-travel occurred on roads, pioneers moved the road locations, where they could, away from the winter bottom lands that had been dry and relatively open during the one-way 1846 - 1856 emigrations north. Where side hills in the area permitted it these new locations were a little higher than the surrounding bottom lands with draining occurring when it rained. Even then wagons in the country often meant struggling through deep ruts or, in wet weather, through rivers of mud (*Applegate Trail Evolves Out Of The Mud: After 1855 - 1856*; Bibl).

Private land ownership and the lost of *Trail* traces due to farming and the plow were minimum in northern JO CO. This was because the area had little prime farming soils and only in a few places would potential *Trail* traces have been obliterated because of the plow (i.e., most, but not all of the farmed land was for pasture and raising stock).

In summary, in the overwhelming number of cases the 1851 - 1855 western Oregon GLO surveys along section lines, performed by credible surveyors, especially Lake and Hyde for the Rogue Valley in 1855, were close in time to the opening of the *Trail*, and recorded the location of the original emigrant *Trail*. The 1851 - 1855 GLO survey evidence had a relative reliability of No. 1, the highest reliability of evidence in the MET's ranking system.

1.3b) GLO Surveyors As Eyewitnesses Oregon Surveyor General Gardner had awarded Contract No. 54 to Wells Lake and George Hyde on February 19, 1855 (*Chaining Oregon*, p. 196). This important assignment included townships along the *Trail* in northern JO CO, and along the Rogue River – as well as the isolated, gold-rich Illinois Valley in southwestern Jackson County, an area now included in JO CO. Wells Lake, who resigned as chief clerk in the surveyor general's office, was the lead surveyor on this project – his sole contract in Oregon. Hyde's familiarity with the region with Contract No. 39 made him a logical partner (Appx. I).

As the hot 1855 summer wore on, mining dried up along the creeks and tensions simmered between Indians and restless miners. Hearing reports of random killings in the mountains, Lake and Hyde hurried their subdivisions and, at the end of the first week in August 1855, finished Contract No. 54. This completed the GLO township and subdivision surveys in the Rogue River Valley.

Hugo Emigrant Trails Committee, Hugo Neighborhood Association & Historical Society, and Josephine County Historical Society. October 18, 2011. *Oregon General Land Office Surveyors: 1850s*. Brochure 4C of Applegate Trail GLO Surveys Brochure Series. Hugo, OR.
<http://www.hugoneighborhood.org/inventorybrochures.htm>

The significant primary GOL survey for the EI-5Man Site, by eyewitness GLO surveyors Lake and Hyde, was the 1855 GLO survey (including individual section line surveys), and its companion 1856 GLO survey map for T.35S., R.6W., W.M. (Sec. II.A.2). Lake and Hyde were very credible GLO surveyors (Appx. I).

1855 GLO Survey & 1856 GLO Survey Map: T. 35S., R. 6W., W.M.

<u>Surveys</u>	<u>No.</u>	<u>Awarded</u>	<u>Surveyors</u>	<u>When Surveyed</u>	<u>Map In Conformance</u>
Township Lines	No. 54	February 1855	Lake & Hyde	March 31, 1855	1856
Subdivisions	No. 54	February 1855	Lake & Hyde	August 1855	1856

GLO surveys for JA-3 through JA-7 (Maps 9, EI-5Man 1, & EI-5Man 4b) are significant relevant evidence. In addition, and of significance is that the GLO surveys were conducted in 1855, a year very close to the highest primary use from 1846 - 1855 for the 1846 - 1883 *Trail*.

1.4 Written Studies: University of Oregon (Sec. II.A.7)

1. University of Oregon. May 27, 2010. *Pedestrian Survey of Stockpile Site South of Chancellor Quarry in the I-5 Jumpoff Joe-Glendale Project, Josephine County* (ODOT Key 16763; Museum of Natural and Cultural History Report No. 2010-026. Eugene, OR.
2. University of Oregon. May 27, 2010. *Subsurface Reconnaissance of the I-5 Chancellor Quarry Stockpile Project, and Metal Detector Survey Within the George and Mary Harris 1854 - 55 DLC (35JO246)*,

1.5 Written Analysis: HETC

- April 26, 2014 Field Trip Minutes. MET Manual Trial Evaluation of OR-JA-00-35-06-2-Silvestri Property
- Morning September 26, 2014 National Park Service Field Trip: Trail at Harris DLC & Grave Creek Hills Pass
 I-5 Manzanita Rest Area Interpretive Signage
 . Applegate Trail: 1846 - 1883
 . Harris Cabin: Donation Land Claim On Applegate Trail
 . Lowland Takelma First Citizens
- Sept 26 Trip Resources
 . Lowland Takelma Indian References & Resources
 Hugo Native American Team, Hugo Neighborhood Association & Historical Society
http://www.hugoneighborhood.org/BROCHURE_NA1B_Hugo_Native_American_Team_041912.pdf
 . Hugo Native American Program
 Hugo Neighborhood Association & Historical Society
http://www.hugoneighborhood.org/Hugo_Native_American_Program.htm

- . Points of Interest (POIs) for Applegate Trail (Trail)
<http://www.hugoneighborhood.org/inventorybrochures.htm>
- . Applegate Trail at Harris Cabin & Donation Land Claim
 Brochure 8. Harris Road 1 (Rest Area), Trail Site JA-4A
 Brochure 32B. Harris House, Trail Site JA-H2AA
- September 26, 2014 p.m. NPS Signage Field Trip Minutes
- October 2014 Paper: Applegate Trail Signage Project For Harris DLC & Grave Creek Hills Pass
- October 2014 Chapter IV: Applegate Trail Signage Project Recommended Text Alternatives
- . 2014 Paper: Maps
- . 2014 Paper: Photographs I of III
- . 2014 Paper: Photographs II of III
- . 2014 Paper: Photographs III of III
- . 2014 Paper: Aerial Photographs I
- Rose, Karen; Walker, Mike; Whalen, Jon. October 21, 2014. *Applegate Trail Signage Project*. For Hugo Emigrant Trails Committee, Hugo Neighborhood Association & Historical Society. Applegate Trail at Harris Donation Land Claim & Applegate Trail Crossing Over Mt. Sexton Pass. Hugo, OR.

2. Cartographic The historical focus of the HETC's *Trail* inventories were GLO, DLC, and modern surveys. However, this would not be the case for the EI-5Man Site for which there was no GLO or DLC surveys. The primary cartographic evidence for EI-5Man Site was the 1855 JA-3 survey, 1855 JA-4 survey, and the 1856 GLO T.35S., R.6W., W.M. survey map for areas inside of sections lines (Map 11; Map EI-5Man 1).

Applegate Trail (ATSP, Chpt. II, p. 1)
<http://www.hugoneighborhood.org/applegat.htm>

- History & Applegate Trail Inventory
<http://www.hugoneighborhood.org/applegat.htm>
- Diaries, Journals, & Letters: Applegate Trail Inventory
<http://www.hugoneighborhood.org/diaries.htm>

Applegate Trail Points of Interest (POIs) References & Resources (ATSP, Chpt. II, p. 1)

- History & Applegate Trail Inventory
<http://www.hugoneighborhood.org/applegat.htm>
- Points of Interest for *Trail* Brochures, Including Surveyed General Land Office
<http://www.hugoneighborhood.org/inventorybrochures.htm>
- Applegate Trail Fords
<http://www.hugoneighborhood.org/BROCHURE%20%20RR%20Pearce%20Riffle%20Ford%20020210.pdf>

a) 1855 GLO Survey & 1856 GLO Survey Map: T. 35S., R. 6W., WM

At this point in the research, the only primary survey is the 1855 GLO survey and its 1856 GLO survey map for T.35S., R.6W., W.M.

1855 GLO Survey & 1856 GLO Survey Map: T. 35S., R. 6W., WM

<u>Surveys</u>	<u>No.</u>	<u>Awarded</u>	<u>Surveyors</u>	<u>When Surveyed</u>	<u>Map In Conformance</u>
Township Lines	No. 54	February 1855	Lake & Hyde	March 31, 1855	1856
Subdivisions	No. 54	February 1855	Lake & Hyde	August, 1855	1856

Table II.B.3.b). General Land Office Surveys & Surveyors For Townships In Hugo, Oregon Region
GLO Field Review SubCommittee
General Land Office Maps
Hugo Emigrant Trails Committee
Hugo Neighborhood Association & Historical Society
http://www.hugoneighborhood.org/general_land_office_maps.htm

1856 GLO Map T. 35S., R. 6W., WM

Surveyor Generals Office, Salem, OR. March 31, 1856, C. T. Gardner, Surv. Gen of Oregon
<http://www.hugoneighborhood.org/1856%20GLO%20Map%20T35S%20R6W.pdf>

Oregon Surveyor General Gardner had awarded Contract No. 54 to Wells Lake and George Hyde on February 19, 1855 (*Chaining Oregon*, p. 196). This important assignment included townships along the *Trail* in northern JO CO, and along the Rogue River – as well as the isolated, gold-rich Illinois Valley in southwestern Jackson County, an area now included in Josephine County. Wells Lake, who resigned as chief clerk in the surveyor general’s office, was the lead surveyor on this project – his sole contract in Oregon. Hyde’s familiarity with the region with Contract No. 39 made him a logical partner (Appx. I).

As the hot summer wore on, mining dried up along the creeks and tensions simmered between Indians and restless miners. Hearing reports of random killings in the mountains, Lake and Hyde hurried their subdivisions and, at the end of the first week in August 1855, finished Contract No. 54. This completed the GLO township and subdivision surveys in the Rogue River Valley.

Hugo Emigrant Trails Committee, Hugo Neighborhood Association & Historical Society, and Josephine County Historical Society. October 18, 2011. *Oregon General Land Office Surveyors: 1850s*. Brochure 4C of Applegate Trail GLO Surveys Brochure Series. Hugo, OR.
<http://www.hugoneighborhood.org/inventorybrochures.htm>

b) JA-3 & JA-4 1855 GLO Surveys GLO surveys on both sides of the EI-5Man Site were Trail sites JA-3 and JA-4.

(1) JA-3 Louse Creek Saddle

Road POI Name Louse Creek Saddle ■ JA-3A
POI ID Code OR-AG-00-35-06-24/25-W-JA-03-A

GLO Survey Notes Page 6: Subdivisions of Township No 35 South of Range No 6 West; West on True Line Between Secs 24 &25.

Chains

39.95 Set Qr Sec Post [39.95 chains = 2,636.7']
53.90 Jacksonville Road c NW & SE [53.90 chains = 3,557.4']
79.90 To Sec Corner [79.9 chains = 5,273.4']

Latitude & Longitude of POI

42° 30' 22.0" North Latitude
123° 21' 33.7" West Longitude

(2) JA-4 Harris Road 1 (I-5 Rest Area)

Road POI Name Harris Road 1 ■ JA-4A
POI ID Code OR-AG-00-35-06-13/24-W-JA-04-A

1855 GLO Survey Notes Page 8: Subdivisions of Township No 35 South of Range No 6 West, West on True Line Between Secs 13 & 24

Chains

73.15 Jacksonville Road c N&S [73.15 chains = 4,827.9"]
73.15 a house bears N25°E 3 chains distance
79.75 To Sec Cor [79.75 chains = 5,263.5'].

Latitude & Longitude of POI Calculated³

42° 31' 14" North Latitude
123° 21' 51" West Longitude



Photo 1. Benched Road Trace North of JA-4

Benched Road Trace. JA-4 is north of the East I-5 Manzanita Rest Area along the east side of the I-5 right-of-way in the ditch approximately 1,200' from the EI-5Man Site. There is a benched road trace with a north-south orientation approximately 150' north of JA-4 (Photo 1).

Harris Swale. There is a 390 foot swale north of JA-4 and south of Harris Creek. The swale was first identified by a faint linear tree pattern on a 2006 aerial photograph. On the ground the swale is slight, but obvious in its northern segment and faint to disappearing in its southern section. A working hypothesis is that this swale is a *Trail* remnant, or a parallel ditch diverting water from the *Trail*. Its alignment matches the 1856 GLO survey map.

Harris Creek Ford. There are three low gradient ford slopes across Harris Creek NNW of the Harris swale. These fords could connect the swale with the *Trail* identified on GLO map NNW toward JA-5.

c) Other Research Jim Ford, Co-Project Chair, HETC, is researching potentially relevant 1870, 1874, and Oregon Highway Department construction strip maps.

3. Physical The historical focus of *Trail* inventories were GLO, DLC, and modern surveys. At this level of inventory, very few traces were found. Exceptions in the area were: trace at JA-2, three probable ford crossing over Harris Creek, and open linear features north of JA-4 and the EI-5Man Site.

a) Oak Savanna The ground around the EI-5Man Site is relatively flat, including the ground south to JA-3. It is estimated that it was an oak savanna in 1846. In late summer/fall in this region acts like a high dry oak savanna.

In southwestern Oregon the uses of fire by Native Americans, as well as natural lightning fires, greatly influenced vegetation patterns for thousands of years, until the mid-1800s. When European settlers first arrived in the area, recently burned over lands were common, grasslands were much more prevalent than today, and trees clustered along streams, ridge tops, and

protected valleys (*Applegate Trail's Open Valleys & Wagon Routes In Hugo Region: 1846 - 1855*; Bibl).

Applegate Trail's Open Valleys & Wagon Routes In Hugo Region: 1846 - 1855
Applegate Trail Inventory
Points of Interest for Applegate Trail Brochure Series, Including GLO Points of Interest
Hugo Neighborhood Association & Historical Society
<http://www.hugoneighborhood.org/inventorybrochures.htm>

From a vegetation point of view much of the *Trail* did not have to be cleared on the east side of the Cascades. Except for the Cascades and the Umpqua mountains north of Grants Pass, a considerable portion of the emigration routes west of the Cascades were through open valleys. In the Hugo region diarists noted only three places they had to cut brush from the Rogue River to Grave Creek: 1. Louse Creek, 2. Jumpoff Joe Creek, and 3. north side of Grave Creek Hills.

The period of travel for 1846 - 1855 was at the last quarter of a 2,000 mile emigration. Travel in southwestern Oregon was during the late summer when the land was bone dry until the fall rains came in late October or November. On October 26, 1846 diarist Pringle wrote: "*The wet season commenced the second day after we started through the mountains.*"

Emigrant wagon traffic on the *Trail* in 1846 - 1855 to the Willamette Valley was mostly one way. Southwestern Oregon was hostile to pioneers prior to Native American removal in 1856 to distant reservations. This meant that, except for anomalies like the gold rush to California, all traffic on the Trail in the Hugo region was one-way north to the Willamette Valley. These emigrant folks were not building or improving roads. Where necessary they were cutting a trail through the wilderness to get beyond, and they did not intend to come back.

In summary, the *Trail* in the Hugo region was restricted by the complex mountain-valley structure of the region. A working hypothesis of the HETC is that, except when traversing mountains and ridges, the *Trail* was located in the narrow valleys which in 1846 - 1855 were generally open woodlands and prairies (e.g., oak savanna, etc.) located next to trees clustered along streams. Survey notes on prairies and open woodlands from the 1855 GLO survey for the Hugo region are one of the most prevalent notes. These open areas were like popcorn on the string of the *Trail*. Just north of the EI-5Man Site in 1855 was one of those prairies, and a large part of the reason for the Harris DLC (Map 11). It is assumed that the area at the EI-5Man Site was an oak savanna that would look much like the vegetation today immediately east of the East I-5 Manzanita Rest Area after a modern ground fire.

b) East-West Ridges Along *Trail* In Vicinity of EI-5Man Site

There are three east-west ridges dividing the relatively flat land in the vicinity of the EI-5Man Site, two south and one north (Map EI-5Man - 4b). All observations are made from the point of view of an emigrant traveling north.

(1) East-West Ridge #1 The observer on I-5 and Highland Avenue can see the cut bank of East-West Ridge #1 on the right side of I-5 and Highland, and no cut bank west of I-5.

(2) East-West Ridge #2 This small ridge and cut bank can be viewed west of I-5 very near the southern boundaries of the northbound (east) and southbound (west) I-5 Manzanita rest areas.

(3) East-West Ridge #3 The *Trail* route is located in Hull's draw through East-West Ridge #3. This ridge is the most obvious as its deep cut banks can be readily seen on both sides of I-5.

4. Artifacts At the survey focus level of the *Trail* inventories (i.e., GLO, DLC, and modern surveys), no artifacts were found independently by the HETC. The significant exceptions were the UO field investigations (Sec. I.7). A minor exception was an old pistol found by members of the Josephine County Sportsman Association (JCSA) in an area northwest of JA-7 and near the Davis house (JA-H-2B), which is north of the Harris house (Map EI-5Man 1). The pistol is on display at the office of the JCSA.

5. Recent Field Trips: 2010 - 2014

- April 26, 2010 GLO SubCommittee Field Tours with University of Oregon Archaeologists JA-4 through JA-5, Including Harris Creek Fords
- August 24 - 27, 2010 GLO SubCommittee Field Tours with University of Oregon Archaeologists JA-4 through JA-5, Including Harris Creek Fords
- August 31, 2010 GLO SubCommittee Field Tours with University of Oregon Archaeologists JA-4 through JA-5, Including Harris Creek Fords
- September 10, 2010 NW Chapter of Oregon-California Trails Association Field Trip to Applegate Trail; Presentations at Josephine County Sportsman Association
- Summary GLO SubCommittee spent approximately 13 days assisting two archaeologist teams from SOU and the UO leading to two UO publications.
- Baxter, Knowles, and O'Neill, University of Oregon. 2010. Pedestrian Survey of the Stockpile Site South of Chancellor Quarry in the I-5 Jumpoff Joe – Glendale Project, Josephine County. Research Division, Museum of Natural & Cultural History & State Museum of Anthropology. Cultural Resource Contract for Oregon Department of Transportation (ODOT Key 16763). Eugene, OR.
- Museum of Natural & Cultural History, University of Oregon. April 2011. University of Oregon Museum of Natural and Cultural History's Report No. 2011-002, Subsurface Reconnaissance of the I-5 Chancellor Quarry Stockpile Project, and Metal Detector Survey within the George and Mary Harris 1854-55 DLC (35J0246), Josephine County.
- August 11, 2011 Minutes of Field Trip To Jacksonville Road Of Applegate Trail: Harris Road 3 (Pond) JA-6A
- August 11, 2011 Minutes of Field Trip To Jacksonville Road Of Applegate Trail: Harris Road 4 (Office) JA-7A
- August 15, 2011 Hugo Neighborhood Association & Historical Society & Josephine County Historical Society Mondays Make History. Mapping and Marking The Applegate Trail. Part 1 of 2. The Grants Pass Daily Courier. Grants Pass, OR.
- August 22, 2011 Hugo Neighborhood Association & Historical Society & Josephine County Historical Society Mondays Make History. Conclusion of Mapping and Marking The Applegate Trail. The Grants Pass Daily Courier. Grants Pass, OR.
- April 26, 2014 Field Trip Minutes. MET Manual Trial Evaluation of OR-JA-00-35-06-2-Silvestri Property
- Morning September 26, 2014 National Park Service Field Trip for Lynne L. Mager, Interpretive Specialist, NPS: Trail at Harris DLC & Grave Creek Hills Pass
 - . I-5 Manzanita Rest Area Interpretive Signage
 - . Applegate Trail: 1846 - 1883
 - . Harris Cabin: Donation Land Claim On Applegate Trail
 - . Lowland Takelma First Citizens
- Sept 26 Trip Resources
 - . Lowland Takelma Indian References & Resources
 - Hugo Native American Team, Hugo Neighborhood Association & Historical Society
 - http://www.hugoneighborhood.org/BROCHURE_NA1B_Hugo_Native_American_Team_041912.pdf
 - . Hugo Native American Program
 - Hugo Neighborhood Association & Historical Society
 - http://www.hugoneighborhood.org/Hugo_Native_American_Program.htm
 - . Points of Interest (POIs) for Applegate Trail (Trail)
 - <http://www.hugoneighborhood.org/inventorybrochures.htm>

- . Applegate Trail at Harris Cabin & Donation Land Claim Brochure 8. Harris Road 1 (Rest Area), Trail Site JA-4A
- Brochure 32B. Harris House, Trail Site JA-H2AA
- October 2014 Paper: Applegate Trail Signage Project For Harris DLC & Grave Creek Hills Pass
- October 2014 Chapter IV: Applegate Trail Signage Project Recommended Text Alternatives
 - . 2014 Paper: Maps
 - . 2014 Paper: Photographs I of III
 - . 2014 Paper: Photographs II of III
 - . 2014 Paper: Photographs III of III
 - . 2014 Paper: Aerial Photographs I
- September 26, 2014 p.m. NPS Signage Field Trip Minutes

6. Select Educational Brochures for Applegate Trail & Harris Cabin and DLC: 2005 - 2014 The HuNAHS's educational brochures are snapshots of its research. They were developed because it was fun researching, learning, and providing brief summaries on different historical topics. They also provide an opportunity for community participation and ownership. The HETC and HNAT believe that public outreach and education are essential and must be nurtured for the purpose of raising the community's consciousness about the importance of its history. They know the quality of rural life in Hugo is enhanced through citizen knowledge of its history and the sense of community that a historical perspective facilitates, and they want to work with neighbors to communicate the role it plays in their lives (ATSP, Chpt. II, p. 6).

Culture is the distillation of those things that identify us as people, including our shared and individual sense of heritage, history, place, creativity and art, traditions and customs, stories, and it is an integral part of Oregon and Hugo. The HETC and HNAT believe culture, as one basis for a healthy community, can be an alternative to destructive behavior and a healing force, and that children educated in their history and culture will contribute to the creative workforce of our evolving technological world (ATSP, Chpt. II, p. 6).

- **Harris Cabin and DLC at Manzanita Rest Area**
<http://www.hugoneighborhood.org/inventorybrochures.htm>

Theme a) Applegate Trail: 1846 - 1883
 Theme b) Harris Cabin: Donation Land Claim On Applegate Trail
 Theme c) Lowland Takelma First Citizens

- Select *Trail & Harris* cabin brochures for Manzanita Rest Area follow

Brochure 7	Louse Creek Saddle: Applegate Trail Site JA-3A
Brochure 8	Harris Road 1 (Rest Area): Applegate Trail Site JA-4A
Brochure 9	Harris Road 2 (Harris Creek): Applegate Trail Site JA-5A
Brochure 10	Harris Road 3 (Pond): Applegate Trail Site JA-6A
Brochure 10B	Harris Road 3 (Pond): Applegate Trail Site JA-6A OCTA
Brochure 11	Harris Road 4 (Office): Applegate Trail Site JA-7A
Brochure 32B	Harris House: Cabin Site JA-H2AA

- Select Lowland Takelma brochures follow

Brochure NA-4B	Gray's Hugo Lowland Takelma Sites
Brochure NA-7	Oregon History: Indian Wars
Brochure NA-8A	Language Notes: Indians in Southwestern Oregon I of II
Brochure NA-8B	Language Notes: Indians in Southwestern Oregon II of II

Brochure NA-18B	Edward Sapir, American Anthropologist-Linguistics
Brochure NA-18C	Sapir's Notes on the Takelma Indians of Southwestern Oregon
Brochure NA-18F	John Peabody Harrington, Linguist and Ethnologist
Brochure NA-18G	John Peabody Harrington's Takelma Indian Field Notes: Outline
Brochure NA-22A	Settlement Patterns of Takelma Villages
Brochure NA-50	Hugo's Indian Trail

7. University of Oregon Studies on Applegate Trail & Harris Cabin and Donation Land

Claim Currently the HNAHS is investigating signing a future memorandum of understanding (MOU) with the NPS, Oregon Department of Transportation (ODOT), and Oregon Travel Experience (OTE) for *Trail* signage at the East I-5 Manzanita Rest Area (title page map). The I-5 rest area is just south of the UO's 2010 subsurface reconnaissance study area (i.e., University of Oregon Museum of Natural and Cultural History's (OMN&CH) 2011 Report No. 2011-002 entitled, *Subsurface Reconnaissance of the I-5 Chancellor Quarry Stockpile Project, and Metal Detector Survey within the George and Mary Harris 1854-55 DLC (35J0246), Josephine County*). The HETC will forever remember the ODOT for facilitating the HETC's participation in this study project, and the ODOT, UO, and HETC as partners. Most importantly for the HETC, the UO's studies were professional academic recognition of the credibility and accuracy of the HETC's use of the MET process using GLO, DLC, and modern surveys. It was a rewarding experience that Kelly Rarey and Mike Walker, members HETC, would jump at the chance to repeat.

The UO's studies of the Harris cabin and DLC for the ODOT were in partnership with the HuNAHS (Appx. D1 & Appx. D2). The *Hugo Neighborhood* is looking forward to other partnerships with the UO and ODOT. Two signification research documents relevant to the credibility of the EI-5Man Site as a *Trail* site by the UO follow (ATSP, Chpt. II, p. 5), as well as the Hugo Land Use Committee (HLUC) using these documents to protect the *Trail* and the Harris DLC (Appxs. D1 & D2).

1. University of Oregon. May 27, 2010. *Pedestrian Survey of Stockpile Site South of Chancellor Quarry in the I-5 Jumpoff Joe-Glendale Project, Josephine County* (ODOT Key 16763; Museum of Natural and Cultural History Report No. 2010-026. Eugene, OR.
2. University of Oregon. May 27, 2010. *Subsurface Reconnaissance of the I-5 Chancellor Quarry Stockpile Project, and Metal Detector Survey Within the George and Mary Harris 1854 - 55 DLC (35JO246), Josephine County*. Museum of Natural and Cultural History Report No. 2011-002. Eugene, OR.
3. Hugo Land Use Committee. May 18, 2011. *Email/Letter to James Black, Planner, Josephine County Planning Department*. From HLUC, HNAHS. Hugo, OR.

The two UO studies are part of the Oregon Archeological Database and the Oregon Historic Sites Database. They have been assigned archaeological site numbers, also known as Smithsonian Trinomials by the Oregon State Historic Preservation Office (SHPO).

Federal and state statutes mandate that SHPO retain and manage survey records of sites in Oregon. It is responsible for managing these large and complex databases. While Oregon law exempts from disclosure public records that include location information of archaeological sites or objects (ORS 192.501(11)) the SHPO provides access to such information to professional

archaeologists, tribal governments and qualified researchers (*State of Oregon Archaeological Reporting Guidelines*, p. 3).

Oregon State Historic Preservation Office. July 2011. *State of Oregon Archaeological Reporting Guidelines*. Salem, OR.
http://www.oregon.gov/oprd/HCD/ARCH/docs/state_of_oregon_archaeological_survey_and_reporting_standards.pdf

The HETC will protect location information (i.e., will not disclose location information of archaeological sites or objects from public records (ORS 192.501(11)).

a) University of Oregon *Museum Pedestrian Survey Report No. 2010-026* The following is from the report no. 2010-026 (Appx. D1).

The Oregon Department of Transportation proposes using an ODOT-owned parcel south of the Chancellor Quarry and east of Interstate 5 as a stockpile, staging, and potential asphalt batching site to support contemplated improvements in the I-5 Jumpoff Joe-Glendale Project. The 58-acre Area of Potential Effect, located in the SW1/4 of Section 13, T35S, R6W, Willamette Meridian, is situated on a south and west-facing landscape through which the Harris Creek passes (Report No. 2010-026, p. 27).

Approximately the west third of the project area is located on the George and Mary Harris donation land claim, one of the first pioneer homesteads in the area. That homestead, located on the Applegate Trail (later the Willamette Valley-Jacksonville Road), took a prominent place in southwest Oregon history in the Rogue River War, when during an Indian attack, the husband, son, and hired hand were killed, and, although the outbuildings were burned, Mrs. Harris, successfully defended herself, her wounded daughter, and the cabin from the attackers until the Army arrived. Subsequently, Mr. Harris was reported buried under the floor of the cabin, and the cabin may have been burned. Later he was disinterred and re-buried in Jacksonville (Report No. 2010-026, pps. 27 - 28).

The Harris cabin appears on two 1855 - 56 maps and its original location has been determined. Additionally, recent efforts have relocated the 1855 GLO mapping stations, and the surveyed location of a Harris Creek ford. However, no physical evidence of these historic features have been found to confirm their locations (Report No. 2010-026, p. 28).

A pedestrian survey of the area located three features which may be of historic age, and which may be associated with the historic road or Harris homestead. These include . . . mounds and a wagon road trace or swale. Further, the presence of buried aboriginal sites associated with this prominent meadow is likely, but due to the heavy ground cover, none were identified during the survey (Report No. 2010-026, p. 28).

b) University of Oregon *Museum Subsurface Reconnaissance Report No. 2011-002* The following are excerpts from Museum of Natural and Cultural History Subsurface Reconnaissance report on the noted participation of the HNAHS (Appx. D2).

Local interest in this project was very great, in large measure due to the efforts of the Hugo Neighborhood Association and Historical Society. Mike Walker and Kelly Rarey, active members of this organization, visited the site and provided valuable information, observations, and advice. Their members, some of whom are retired surveyors, had plotted the location of the Harris Cabin from the field notes made by the original land surveyors in May 1855. Their continued interest is much appreciated. Also visiting the project were Chelsea Rose and Katie Johnson from the Southern Oregon University Laboratory of Archaeology (Report No. 2011-002, p. v).

In addition to the subsurface reconnaissance probing, a systematic metal detector survey was conducted in the area of the Harris homestead, made somewhat more challenging by the presence, in places of modern

debris left by recent campers. Thirty-two 20x20 meter blocks were swept with a metal detector at five meter-intervals. Each of the alerts was flagged and a sample of these ground-truthed. The survey was conducted along the west edge of the project area where the General Land Office map and surveyors notes had indicated the location of the Harris cabin and which had been tentatively re-located by the Hugo Neighborhood Association and Historical Society, an avocation group some of whose member are retired surveyors. A cluster of cut nails was discovered in the vicinity of a rock pile that had been identified by this group as the cabin location. A second cluster was discovered at another rock pile that had heretofore gone unnoticed and which may be the remains of an outbuilding said to have been burned during the October 1844 attack. Several horseshoes were found, possibly marking the path of the Applegate Trail along the west side of the project (p. 4).

Chapter 4 leaves little doubt about the fact that the Harris cabin was along the main wagon road (labeled the Road from Willamette Valley to Jacksonville on the 1856 GLO Map; and much later identified as the Applegate Trail). The Harris family was engaged in homesteading, having built a cabin and out buildings along the major thoroughfare through the Rogue Valley. This fact is supported by two 1855 professional surveys and numerous eyewitnesses.

1. The February 1855 GLO Eyewitness Survey Records of Two Houses Close Together: 1. the southern Harris cabin site, but erroneously identified the northern house as that of "Mr. Harris."
2. The 1856 GLO survey map corrects the error and recorded the southern cabin as the Harris house, along with fenced fields, and the "Road from Willamette Valley to Jacksonville" (Applegate Trail) passing through the land claim and between the cabin and the cultivated fields.
3. The 1855 map prepared by, and from a November 2, 1855 eyewitness account, the Lts. H. L. Abbot and R.S. Williamson, US Army Topographical Engineers, identified the Wagon Road next to the Harris cabin.

Figure 4.3 (1855 map) is located in Appendix D4. It clearly identified the *Trail* next to the Harris Rancho (i.e., cabin).

Figure 4.3. Detail of an 1855 map prepared by Lts. H.L. Abbot and R.S. Williamson, US Army Topographical Engineers (Joseph 1861; Abbot Map 2) with key features highlighted in red. Note the relationship of the Wagon Road to the Harris cabin. Note also the location of the Harris Cabin, Cavalry - Indian clashed, and Fort Lane near the Rogue River (p.26).

The following is from the HETC's work on the 1855 Pacific Railroad Survey which had several parts. Of interest here is the report of Lieut. Henry L. Abbot, Corps of Topographical Engineers upon Explorations for a Railroad Route, the Sacramento Valley to the Columbia River (*Pacific Railroad Survey: 1855*, Bibl). The 1855 Pacific Railroad Survey report for the day Abbot was at the Harris cabin follows (*Pacific Railroad Survey: 1855, Rogue River Valley*, Bibl).

Page 108. "November 2. — . . . **Wolf and Grave creeks are separated by high and steep hills, covered with thick timber and underbrush.** On reaching Wolf creek we found Captain Smith in camp, near a house surrounded by a small stockade. . . . **Between Grave and Jump off Joe creeks the road passed over a steep and heavily timbered divide.** The Indians had killed two men in charge of a pack train on this hill, and the half burned remains of their wagon and packs were still to be seen."

"Near this place Major Fitzgerald, 1st dragoons, had overtaken with a scouting party and killed several of the savages. At Jump off Joe creek, a man driving swine had been murdered, and a large number of his animals lay dead in the road.. **On leaving this creek, we passed through an undulating and fertile country, sometimes open and sometimes thinly covered with a growth of oak, sugar maple, and a little pine and hemlock.** After traveling until nearly sun down, we encamped at a building which had been preserved from the general ruin by the heroism of a woman named Harris. After her husband had been murdered and her daughter wounded, she had made a desperate and successful defense by shooting at the

savages from between the crevices of the log house. The traces of her bullets upon the trees, which had shielded the Indians, and the marks of the tragedy within the dwelling, were plainly visible. Soon after dark a small party under the command of Lieut. Allaton, 1st cavalry, arrived with the wounded and encamped. Captain Smith, with a few men, passed us on his way to Fort Lane. The length of our day's march was about fourteen miles."

Page 109. "*November 3. — Today we traveled about twenty-five miles to Fort Lane, crossing Rogue river at Evans' ferry. His house, and others south of the river, were now protected by a few soldiers. . . The land appeared to be rich and valuable. The hills were thinly covered with oak, pine, and other kinds of trees."*

Chapter 4 of the UO study also makes it clear that the 1855 - 1856 Rogue Indian War was started by the white miners and settlers on October 8, 1855 when the Lupton Massacre occurred where half the dead were Native American women and children. This was the day before the Indians retaliated by attacking white settlers, including the Harris family (Figure 4.2 in Appx. D4).

Figure 4.2. The location of the Harris homestead, the Table Rock Reservation, and Fort Lane, as well as the Lupton Massacre, and other major engagements of the Rogue War (p. 23).

c) *Email/Letter to Josephine County Planning Department* The May 18, 2011 email letter from the Hugo Land Use Committee (HLUC) was public testimony for the site review/variance, without hearing, for the ODOT land use application for resuming the Chancellor Quarry, and expanding aggregate processing, stockpiling, and equipment storage onto the adjacent property.

Makepeace, John; McKy, Wayne; and Walker, Mike. Members of the Hugo Land Use Committee. May 18, 2011. *Email/Letter To James Black, Planner, Josephine County Planning Department on ODOT Land Use Application*. Hugo, OR.

The issue with the proposed land use application is the proposed aggregate processing, stockpiling, and equipment storage on Tax Lot 300 between I-5 and Highland Avenue and the probable significant adverse impacts from the proposal to the very shallow, and therefore extremely fragile archaeological site and objects, and historic site located there. If the land use request was approved, the HLUC recommended that the UO's recommendations become conditions of approval to protect the known archaeological site and objects, and historic site (Appx. D3).

d) *Future Studies* There is a question of future archaeological studies beyond the subsurface reconnaissance studies already conducted (Secs. II.A.7d) & V.A.4; Appx. D5). Should additional Phase III Investigations and data recovery studies, the most intensive, and intrusive level of archaeological studies, or something similar, be completed prior to the HETC recommending an interpretive trail from the rest area north along the *Trail* to the Harris cairn and beyond to the vicinity of JA-7? Kelly Rarey and Mike Walker, members of the HETC, remembered the discussion with the OMNCH staff about this question. The issue was vandalism and degradation of the *Trail* resources, especially the Harris cabin site, after public interpretation.

Preliminary "rough" ideas about archaeological field investigations and levels of investigation follow. The author acknowledges that what he doesn't know about would fill volumes.

- Literature Survey
- Phase I Archaeological Investigation

- Phase II Archaeological Field Investigation
- Phase III Archaeological Investigation: Data Recovery Study

SHPO's 2007 *Guidelines for Conducting Field Archaeology in Oregon* probably get at the concern of the HETC with the issue of *Phase III Investigation: Data Recovery Study*. The objectives for Phase I and II Investigations outline the core requirements for Phase III investigation which is the last, most intensive, and intrusive level of archaeological study.

The HETC is investigating the answer to this question/issue by contacting OMNCH staff (Appx. D5). Walker was unsuccessful in making contact as of May 29, 2015.

8. 1895 Josephine County Map The following information is from the document entitled *Official Map of Josephine County, Oregon As A Genealogical Resource* (1895 Map; Bibl). The HNA&HS' primary purpose in preparing the report was to identify the accuracy and reliability of the *1895 Map* as a genealogical resource.

a) Overview (1895 Map, Sec. IX, p. 1) The designer and developer of the *1895 Official Map of Josephine County, Oregon*, Meston & Dygert Book Manufacturers Company of Portland, Oregon, practiced due diligence in creating the large scale 1" = 1 mile map. It is loaded with the details of combining townships, sections, land ownership, property parcels, communities, transportation routes, and drainages. There are many easily recognizable roads and road segments present in 2014.

In 1895, forty years after the county north of the Rogue River in JO CO was GLO surveyed in 1855 with just two main roads, the road from the Willamette Valley to Jacksonville and the IV Road, the transportation system had matured into a vast network of dirt roads along with the ever present Southern Pacific Railroad since 1883.

The *1895 Map* shows a comprehensive detailed picture of the real property parcels, the specific landowners by name, and the detailed farmer to market road system beyond the main north-south transportation arteries (i.e., Jacksonville Road of Applegate Trail and its evolutions, especially I-5 over today's Merlin Hill).

b) Summary Description Of 1895 Map (1895 Map, Sec. IX, p. 2) This section is a summary description of the *1895 Map*.

- Purpose of *1895 Map* - the apparent purpose of the *1895 Map* is advertizing by county businesses to its major landowners and others primarily interested in property.
- Sponsors and/or Authors of *1895 Map* - 17 major Josephine County business.
- Base Map - The base map for the *1895 Map* are the 1850s GLO maps (i.e., PLSS, townships, sections, government lots, and branches, creeks, and rivers). Perhaps some road information.
- Map Information - Beyond the GLO base map information, the *1895 Map* displays land ownership, property parcels, presumably tax lots, transportation such as railroad tracks and roads, with land ownership and property being the focus or purpose of the map.
- Roads. The roads depicted on the *1895 Map* are a combination of the GLO depicted road system when the location had not changed and numerous small to major changes in the road system, usually based upon new roads built by an expanded population.
- Designer and/or Publisher - Meston & Dygert Book Manufacturers Company of Portland, Oregon.

- Source of Information Displayed - The framework for the map was the GLO surveys and maps. It is assumed that the primary source of additional information displayed was GLO and DLC surveys, assessor data, published directory service companies, *Farm and Home Publishers* information, other surveys, and in some cases physical on-the-ground field work.
- Other Uses - The *1895 Map* became a base map for other uses such as a county precinct map.

c) Value Of 1895 Map As A Genealogical Resource

1.	Public Land Survey System (PLSS)	Excellent
2.	Legal Parcels & Patents	Excellent
3.	Land Ownership	Excellent
4.	Drainages (i.e., branches, creeks, and rivers)	Poor to Fair
5.	Roads	Fair - Good
6.	Railroad	Good

The medium scale of the *1895 Map* is 1" = 1 mile or 1:63,360. It can not compete with the detail of a small scale map such as the GLO plats. The *1895 Map* roads is good for general orientation, but not detailed comparisons.

Like the 1856 GLO plats inside of section lines, the entire *1895 Map* was not surveyed. The Jacksonville Road of the *Trail* located on the *1895 Map*, in the vicinity of Non-Surveyed Applegate Trail Site: East I-5 Manzanita Rest Area, is considered good and supports the EI-5Man Site as a segment of the *Trail* (Map EI-5Man - 5; Map EI-5Man - 6).

The *1895 Map* supports the location of the *Trail* in the same location under two other road use names: 1. 1853 - 1880 Military Road, and 2. ca., 1860 - 1911 Oregon-California Wagon Road.

9. Military Road: 1853 - 1880 The United States funded military improvements to parts of the Applegate Trail starting in 1853 through 1880.

Hugo Applegate Trail Smith Hill Pass Group. March 16, 2012, Revised April 1, 2012 & July 19, 2012.
Very Draft United States Military Wagon Road From Myrtle Creek to Camp Stewart: 1853 - 1880. Group part of the HETC, report for the HNAHS & Josephine County Historical Society. Hugo, OR.

The time period of the military road from 1853 through 1880 is a close overlap for the HETC's interpretation that the *Trail's* primary emigrant use was from 1846 - 1883, even though small parties and individual families continued their overland migrations by covered wagon into the twentieth century until the dominate use of the motor vehicle. The 1846 - 1883 time period as the primary time of emigrant use is also the view of the Oregon Historic Advisory Council (OHAC); previously the Oregon Trail Coordinating Council (OTCC; *Applegate Trail/Road Emigrant Year Definition: 1846 - 1883; Bibl*).

The road improvements were for the purposes of a military wagon road from Myrtle Creek to Camp Stewart in the Rogue River Valley of Southern Oregon. The period began with limited transportation options into and through the Rogue Valley. Ships came into the Umpqua estuary and delivered goods destined for the gold mines of Southern Oregon and California. Goods moved from the estuary inland along the Scottsburg-Camp Stuart Wagon Road. Camp Stuart (also identified as Camp Stewart) was a temporary military post occupied in 1851 in the Rogue

River Valley. Congress funded improvements to the Scottsburg-Camp Stuart Wagon Road and to the old Oregon-California Trail from 1851 through 1879. These road improvements led to the beginning of stage travel from Portland to Sacramento in 1860. The same year the Oregon and California (O&C) Stage Company began offering daily stages through the Rogue Valley.

The purpose of the U.S. “Military Wagon Road From Myrtle Creek to Camp Stewart” from 1853 through 1880 was officially for the military. However, regardless of this ostensible purpose, another real goal was road improvement for local residents, to attract civilian populations, and to aid indirectly in the development of the agricultural, timber, and mineral resources of the territory. The following purposes were officially identified by the federal government.

- 1850 Umpqua River Road to connect California of the newness of the country and in consideration of its small and scattered population. It is most obvious that an appropriation is much needed for the construction and improvement of its roads and bridges.
- 1851 Civil and military purposes.
- 1853 Construction of a road; construction of military road; secure a practical wagon road; and **secure a practical wagon road for the benefit of the fall emigrants** and other travel.
- 1856 Its utility in military operations is sufficiently evident from the fact that it forms a part of the only inland route of communication between California and the Columbia River, Connecting the Settlements Extending Between the Water of the Bay of San Francisco and the Columbia River.
- 1857 Completion of military roads in Oregon Territory.
- 1858 Operations on the military roads in Southern Oregon.
- 1879 Improvement of the old Scottsburg-Camp Stuart Military Road.
- 1880 Half the appropriation expended on Scottsburg-Camp Stuart Military Road.

On October 10, 1855 the Military Road was used by U.S. Dragoons from Fort Lane to suppress the Lowland Takelma during the 1855 Indian War, including, by accident, to rescue Mary Harris and her daughter (II.A.1.b)).

There were three main appropriations and construction periods for the U.S. Military Wagon Road From Myrtle Creek to Camp Stewart.

- 1. 1853 - 1854.
- 2. 1857 - 1858.
- 3. 1879 - 1880.

10. Lowland Takelma The 1855 – 1856 Rogue River War was an armed conflict between the U.S. Army, local militias and volunteers, and the Native American tribes commonly grouped under the designation of Rogue River Indians, in the Rogue River Valley area of what today is southern Oregon (Map 1 & Map 2). The only Takelma cultural locations GLO surveyed in northern JO CO were trails (e.g, Map 8, Map 10, etc.). While the conflict designation usually includes only the hostilities that took place during the mentioned period of time, numerous skirmishes escalated in the area since 1850, eventually breaking into open warfare

In the rush to get the gold and wealth of southwestern Oregon, the first miners to this area took no account of the people whose villages and way of life they were displacing. The resistance of these people engendered several years of bloody wars, between 1851 and 1856, culminating in the extermination of many natives and the displacement of most of the rest to reservations in northern Oregon. Much of the struggle took place along the Rogue River, which was not only home to many native families, but also the source of much of the region's gold.

The discovery of gold spurred the first white settlement of the region in 1852. The Takelma who survived were removed in 1856. Settlers and natives lived in the region together for less than four years.

- *Rogue Indian Wars from 1851-1856* (Bibl).
- *Cultural Resources Background Paper* (Bibl).
- *The Takelmas and Their Athapascan Neighbors: A New Ethnographic Synthesis for the Upper Rogue River Area of Southwestern Oregon* (Bibl).

B. Conflicting Evidence/Not Mutually Supporting

There was a substantial amount of evidence supporting EI-5Man Site as a location along the *Trail*.

No evidence was discovered that was conflicting and no minority reports were written.

III. EAST I-5 MANZANITA REST AREA TRAIL LOCATION & VERIFICATION

Chapter III's primary purpose is to conduct a verification analysis of the EI-5Man Site of the relevant evidence for site location. It analyzes and documents all the relevant written, cartographic, physical, and artifact evidence (i.e., mutually supporting and conflicting evidence) to locate and "verify" emigrant wagon trails. It is the heart of the MET analysis and the element most similar to the scientific method.

The author's verification analysis of the relevant evidence is his synthesis of the MET's compliance standards under the umbrella of MET CS 3, Cardinal Rules of Trail Verification (Appx. F). His goal was to emphasize the MET methods used to locate and verify emigrant wagon trails. His method tried to focus on accuracy and reliability of implementing the MET program which rests on quality research. Hopefully, his preliminary process will be critically evaluated by the HETC on its merits, and any changes needed identified, to arrive at a standardized verification interpretation of the MET for use by the HETC in future verification analyses (Sec. I.C.5, Potential Future Guidelines). This analysis also identified multiple hypotheses for EI-5Man Site, an idea not identified in the 2002 MET, but identified in the 2014 MET (Sec. I.A.B; Appx. N).

The MET process is for the trail researcher to **examine and document all the relevant written, cartographic, physical, and artifact evidence**. In the best of situations, they are found to be mutually supporting. The following are the MET Compliance Standards (CS).

- MET CS 1. Examine and Document All the Relevant Written, Cartographic, Physical, and Artifact Evidence (MET, pps. 4 - 5).
- MET CS 2. Evaluate General Principles of Trail Location & Verification (MET, p. 4).
- MET CS 3. Apply Cardinal Rules of Trail Verification for Conformance (MET, p. 5).
 - . Coherence Rule. Linear Uniformity.
 - . Corroborative Rule. Confirming Evidence, including MET CS 4.
 - . Collateral Rule. Physical/Topo Evidence, including MET CS 5.
 - . Correlation Rule. Overall Agreement.
- MET CS 4. Rank Reliability of Different Types of Evidence Used to Verify Trail Location (Part of the Corroborative Rule, Appx. F; MET, pps. 5 - 8).
- MET CS 5. Evaluate Applicability of Guidelines for Locating Wagon Trails (Part of the Collateral Rule, Appx. F; MET, pps. 8 - 11).
- MET CS 6. Classify Trail Location with the Classification Categories (MET, p. 13 - 16).
- MET CS 7. Mapping (MET, pps. 17 - 21, Appx. A)
- MET CS 1. Document All the Relevant Written Evidence (MET, p. 5).

The Trail site to be examined and documented is the EI-5Man Site (Chpt. II).

Full Name: Non-Surveyed Applegate Trail Site: East I-5 Manzanita Rest Area Site
Common Name: East I-5 Manzanita Rest Area (EI-5Man Site)
OCTA Code: OR-AT-00-35-06-N/A-NN/A-JA-N/A

A. Examine and Document All the Relevant Written, Cartographic, Physical, and Artifact Evidence

Even with all the supporting evidence the HETC has for this site, “Applegate Trail Site: East I-5 Manzanita Rest Area” (EI-5Man Site), the exact location cannot be verified with absolute certainty (i.e., site is not a GLO or DLC surveyed site; no specific supporting diaries, journals, or reminiscences specific to site; and no direct physical, or artifact evidence). Also, the site had been extensively altered by construction of the rest area (i.e., *Trail* location is approximate with high accuracy, but elements of its original condition had been permanently altered). The significant evidence exceptions to the lack of primary evidence for the EI-5Man Site are indirect and substantial.

1. General Probability Principle (MET, p. 4) The conclusion/recommendation, with a high degree of probability, is that the EI-5Man Site is a verified *Trail* site. The recommendation was the result of comprehensive research of the surroundings areas when applying the Coherence Rule: Linear Uniformity, and the Corroborative Rule: Confirming Evidence [i.e., cartographic and relatively close GLO surveys]. There is no doubt that later freighting, mining, military, and stage activities occurred over it. However, the “Linear Uniformity” cartographic evidence, and indirect GLO surveys overwhelmingly support the conclusion that it originated as an emigrant trail.

2. General Analogy Principle (MET, p. 4) The location of the EI-5Man Site was authenticated by comparing and contrasting it with what is already known about other verified emigrant trail sites in relative close proximity. This non-surveyed site was authenticated by applying the accumulated knowledge gained from previously verified trail sites in the same geographic vicinity for the same topographic, soil, and vegetation conditions found at the EI-5Man Site.

B. Verification Analysis In Locating And Verifying Emigrant Trail

A hypothesis is a proposed explanation for a phenomenon. For a hypothesis to be a scientific hypothesis, the scientific method requires that one can test it. Scientists generally base scientific hypotheses on previous observations that cannot satisfactorily be explained with the available scientific theories.

A conjecture is a proposition that is unproven. Conjecture is contrasted by hypothesis (hence theory, axiom, principle), which is a testable statement based on accepted grounds. A conjecture is a guess. A conjecture is a statement for which someone thinks that there is evidence that the statement is true. The main thing about a conjecture is that there is no proof. A hypothesis is an explanation, tentative and unsure of itself, for specific phenomena about which there are questions. A well-crafted hypothesis very often suggests the best way to perform the research and gives clues to research design.

A fascinating reality is the actual similarities between the scientific method and the MET method in the area of examining and documenting all the relevant evidence through testing hypotheses.

Walker, Mike, Member, HETC; Education Chair, HNAHS. Draft July 4, 2012; Updated Draft May 3, 2015. *Scientific & MET Manual Methods*. Hugo, OR.

The 2014 *MET Hypotheses Method* was used to verify the authenticity of a trail segment.

1. The first step is identifying the range of hypotheses.
2. The second step is rigorously analyzing each hypothesis for location and verification:
 - a) against the available supporting and conflicting evidence (MET, p. 5),
 - b) for applicability of guidelines for locating wagon trails (MET CS 4; MET, pps. 8 - 11; part of the Collateral Rule, Appx. F),
 - c) ranking the reliability of different types of evidence with the eight MET identified types of evidence used to verify trail location with their rank order reflecting the relative reliability of available evidence (MET CS 4; MET pps. 5 - 8; part of the Corroborative Rule, Appx. F). The eight types of evidence are 1 - 8 with ranking number 1 having the highest relative probability of reliability and ranking 8 having the lowest probability of reliability (Appx G), and
 - d) conformance with the cardinal rules of trail verification (MET, p. 5; Appx F).
3. The final step is interpreting the analyses for the hypothesis that has the highest probability of being correct. It is possible that several hypotheses could remain viable pending future evidence.

A new section of the MET in its present 2014 version provides the following on hypotheses. The author believes this is a reasonable addition, and creates more questions (Appx. N).

“Another method that can be applied to determine an unknown or unverified trail route is creating *multiple hypotheses* and then rigorously testing each one. Hypotheses are designed to be “destructively tested.” The biggest danger for the mapper analyst is to embrace a favored hypothesis rather than remain skeptical and rigorously test its validity. A hypothesis that remains durable under testing has a higher probability of being accurate. Look for a “fatal flaw” that would render a hypothesis highly unlikely to fit normal emigrant travel patterns. The testing process includes applying diary descriptions, General Land Office (GLO) plat information, and terrain surface characteristics in the field.”

1. Range of Hypotheses The potential hypotheses for the EI-5Man Site’s location being part of the *Trail* follows, as well as the null hypotheses that it is not part of the *Trail*. The concept of a range of hypotheses come from the idea of mutually supporting and conflicting evidence (MET, p. 5). Which hypothesis or hypotheses fit the evidence better than the other hypothesis?

- Hypothesis: EI-5Man Site existed ca., 1846 through 1855 - 1856.
- Hypothesis: EI-5Man Site existed ca., 1846 through a least 1895.

- Hypothesis: The GLO Route of interest for the EI-5Man Site is from JA-3 north to JA-4 through JA-7.
- Hypothesis: The topography analysis of three east-west ridges and flat land in the EI-5Man Site area matches the 1856 GLO survey map.
- Hypothesis: 1895 Official Map of Josephine County is correct.
- Hypothesis: The : EI-5Man Site is not a site along the *Trail*.
- Hypothesis: 1895 Official Map of Josephine County is in error.

As of May 28, 2015 the researcher had not discovered any conflicting evidence, or not mutually supporting evidence, and the null hypotheses was eliminated along with other supporting hypotheses down to two preferred hypotheses for analysis.

- Primary Hypothesis: EI-5Man Site existed ca., 1846 through a least 1895.
- Secondary Hypothesis: 1895 Official Map of Josephine County is accurate for the EI-5Man Site.

2. Verification Analysis

a) Evidence Mutually Supporting The supporting evidence analyzed for reliability (Sec.s I.B.2; III.B.2.c) that the EI-5Man Site is part of the *Trail* follows (Sec. II.A).

- Written eyewitness descriptions of credible GLO Surveyors Wells Lake and George Hyde (Appx. I) locating JA-3 & JA-4 (i.e., 1855 GLO Surveys) on both sides of EI-5Man Site.
- JA-4 is approximately 1,200' north of the EI-5Man Site.
- 1855 GLO bearing and distance survey locating the Harris cairn, approximately 1,400' north of the EI-5Man Site.
- Linear Conformity of 1855 Applegate Trail GLO Surveyed Sites JA-4 through JA-7 which are located on both sides of the EI-5Man Site on 1856 GLO surveyed map.
- Linear Conformity of 1855 GLO Surveyed Harris Cabin Site (JA-H-2A) & EI-5Man Site.
- 1855 US Army Topographical Engineers map (eyewitness account) identified the main wagon road next to the Harris Rancho (i.e., cabin).
- 1895 Official Josephine County Map Shows Similar Locations For 1855 GLO Surveyed Sites JA-4 - JA-7 and 1856 GLO Surveyed Map.
- Written eyewitness descriptions of GLO Surveyors Wells Lake and George Hyde locating the EI-5Man Site as part of a general south-north general way, or direction.
- Physical and Artifact Evidence From University of Oregon Studies Along Applegate Trail Around JA-H-2A Harris Cabin Site support of linear conformity for EI-5Man Site).
- A benched road trace, with a north-south orientation approximately 150' north of JA-4.
- The Three East-West Ridge Line Analysis.
- A 390 foot swale north of JA-4 and south of Harris Creek.
- 1856 GLO survey map cartographic evidence for EI-5Man Site area inside of sections lines.
- 1855 General Land Office (GLO) cadastral survey plats identifying the linear conformity of the *Trail* at Surveyed Sites JA-4 - JA-7, on both sides of EI-5Man Site

- Linear conformity of 1855 GLO Surveyed Harris Cabin Site (JA-H-2A) & the EI-5Man Site.
- 1895 Official County Map identifying route EI-5Man Site is located.
- The 1855 - 1856 GLO surveys and cartographic evidence being close in time to the 1846 - 1883 Applegate Trail

In the best of all situations, the trail researcher examines all the relevant written, cartographic, physical, and artifact evidence, and finds them mutually supporting. This was the case for the EI-5Man Site. The conclusion for the EI-5Man Site was the result of three sets of analysis: 1. guidelines for locating wagon roads, 2. ranking the reliability of evidence, and 3. best conformance with cardinal rules.

b) Evaluate Applicability of Guidelines for Locating Wagon Trails The guidelines were not as helpful as when the area of investigation had been in hilly or mountainous terrain that is forested and had a history of logging (i.e., MET CS 5, part of the collateral rule, Appx F). Except for the three minor east-west ridges dividing the relatively flat land, two south and one north, of the EI-5Man Site (Map EI-5Man - 4b), the *Trail* between JA-3 - JA-7 had been relatively flat land through an oak savanna forest.

The alignment of the *Trail* was generally north-south with three exceptions (Sec. II.3; Map EI-5Man - 4b). These *Trail* route deviations depicted on the 1856 GLO survey map match the 1894 Official Map of Josephine County.

1. In a minor saddle of East-West Ridge #1 at JA-3.
2. Just to east of a toe of East-West Ridge #2.
3. Through Hull's Draw at East-West Ridge #3 (JA-5 through JA-7)

Wagon Trail Guideline No. 13 was found to be applicable in the EI-5Man Site's surrounding area, but not in the altered site itself (MET, p. 9).

13. Old wagon traces will often display different vegetation growth than on adjacent area. This can be evident in grass, brush, or forested areas. On the edges of trails, where softer soil has built up, more vigorous growth can occur leaving a distinctive vegetative border. On trails with hard, compacted soil, little or only stunted growth will occur. And in some cases, where a swale has acted as a rain collector, a line of trees or high shrubs may have grown up over the years.

South of the EI-5Man Site is a road trace and vegetation differential located by the HETC north-west of Soldier Creek JA-2A. There are also north-south linear patterns north of JA-4 (Sec. III.B.2.a)).

Unfortunately, JA-4 itself was beyond recognition being part of I-5 and its east ditch. This altered condition is the same for the specific EI-5Man Site within the boundaries of the major landscaping development of the East I-5 Manzanita Rest Area.

c) Ranking the Reliability of Evidence Used to Verify Trail Location (MET CS 4. Appx G; MET, pps. 5 - 8). What is the relative reliability of different types of evidence for the EI-5Man Site? In this case the GLO survey notes and plats (i.e., along section lines) are considered excellent for areas south and north of the site (Appx. I. GLO Surveyors Lake & Hyde). The following is the interpretive reliability ranking of the significant supporting evidence used to verify the EI-5Man Site (Appx. G; Table 1).

- Written eyewitness descriptions of GLO Surveyors Wells Lake and George Hyde locating JA-3 & JA-4 (i.e., 1855 GLO Surveys) rank No. 1 for reliability.
- JA-4, which is approximately 1,200' north of the EI-5Man Site, ranks No. 1 for reliability.
- 1855 GLO bearing and distance survey locating the Harris cairn, approximately 1,400' north of the EI-5Man Site, ranks No. 1 for reliability.
- Written eyewitness descriptions of GLO Surveyors Wells Lake and George Hyde locating the EI-5Man Site as part of a general south-north general way, or direction, rank No. 2 for reliability.
- The 1855 - 1856 GLO surveys and cartographic evidence being close in time to the opening of the 1846 - 1883 Applegate Trail ranks No. 1 for reliability.
- 1855 US Army Topographical Engineers eyewitness map identified the main wagon road next to the Harris Rancho (i.e., cabin), ranks No. 2 for reliability.
- University of Oregon *Trail* artifacts evidence and documentation (i.e., in support of linear conformity for EI-5Man Site) rank No. 3 & No. 8 for reliability.
- A benched road trace, with a north-south orientation approximately 150' north of JA-4, ranks No. 3 for reliability.
- The Three East-West Ridge Line Analysis ranks No. 3 for reliability.
- A 390 foot swale north of JA-4 and south of Harris Creek ranks No. 3 for reliability.
- 1856 GLO survey map cartographic evidence for EI-5Man Site area inside of sections lines rank No. 4 for reliability.
- 1855 General Land Office (GLO) cadastral survey plats identifying the linear conformity of the *Trail* at Surveyed Sites JA-4 - JA-7, on both sides of EI-5Man Site, ranks No. 4 for reliability
- Linear conformity of 1855 GLO Surveyed Harris Cabin Site (JA-H-2A) & the EI-5Man Site ranks No. 4 for reliability.
- 1895 Official County Map identifying route EI-5Man Site is located ranks No. 7 for reliability.
- All other supporting evidence ranks No. 8 for reliability.

There is no MET explanation for how to use a collection of different types of conflicting evidence with different reliability rankings (Table 1). In this case there was only mutually supporting evidence, and the issue of the reliability of conflicting evidence was not an issue. The HETC should consider developing a methodology for using different types of conflicting evidence with different reliability rankings to address this issue (Sec. I.C.5).

Table 1 has the same information of the reliability rankings as provided in the above text. The difference is the evidence displayed in a visual form. This visual format had power for the author as the exercise of developing the table created an understanding which provoked questions and solutions not previously considered.

d) OCTA's Cardinal Rules of Trail Verification (Appx. F) The verification determinations of the author applying OCTA's *Cardinal Rules of Trail Verification* as applicable to *Trail* EI-5Man Site follow (Appx. F, ATSP; Appx. G).

Coherence Rule. Linear Uniformity. Yes
Corroborative Rule. Confirming Evidence. Yes
Collateral Rule. Physical/Topo Evidence. Yes
Correlation Rule. Overall Agreement. Yes

Yes - Coherence Rule - Linear Uniformity/Systematic Connection. There must be a linear uniformity so that trail segments form a continuous sequence (i.e., the trail segment under investigation has to link coherently with the trail segments that precede and follow it). Although unsurveyed itself, the EI-5Man Site has reliable 1855 GLO surveys south and north of it by the credible GLO surveyors Wells Lake and George Hyde (Appx. I). The EI-5Man Site has reliable linear uniformity (also see Sec. III.B.2.a)).

- Linear Conformity of 1855 Applegate Trail GLO Surveyed Sites JA-4 - JA-7 on both sides of the EI-5Man Site.
- The High Linear Density of Five GLO Surveyed Sites Within Less Than A Mile.
- Linear Conformity of 1855 GLO Surveyed Harris Cabin Site & EI-5Man Site.
- 1895 Official Josephine County Map Shows Similar Locations For GLO Surveyed Sites JA-4 - JA-7

Yes - Corroborative Rule - Confirming evidence to support with evidence or authority. There must be confirming documentary evidence of the trail (i.e., the trail segment under investigation has to have valid cartographic evidence to support its authenticity). The EI-5Man Site has reliable GLO surveys, including a 1855 Topographical Engineers map.

- The linear orientation of the *Trail* is north and south through EI-5Man Site on flat ground.
- The linear orientation of the *Trail* through EI-5Man Site was on flat ground in open burnt over oak savanna.
- At a distance of less than 1/4 mile the surveyed GLO sites JA-4 and JA-H-2A are relatively close to EI-5Man Site.
- The 1855 - 1856 GLO surveys and cartographic evidence is very close in time to the opening of the 1846 - 1883 Applegate Trail (i.e., as a general rule the closer in time the evidence is in relation to the trail under investigation, the more reliable that evidence becomes).
- Written eyewitness descriptions of GLO Surveyors Wells Lake and George Hyde locate the EI-5Man site as part of a general south-north general way or direction.
- 1855 US Army Topographical Engineers map (eyewitness account) identified the main wagon road next to the Harris Rancho (i.e., cabin).

Yes - Collateral Rule - Physical/Topo Evidence. There must be accompanying physical and/or topographical evidence of a trail; i.e., the trail segment under investigation has to have some geomorphic or artifact evidence to support it as an authentic emigrant trail. Adequate diary/journal or physical/artifact evidence is lacking at the EI-5Man site. The site does not have reliable traces or artifact evidence. However, it has physical and artifact evidence in similar county just 1/4 mile north of it.

- There are no traces at, or north/south of the *Trail* course at EI-5Man site (i.e., it is in the developed East I-5 Manzanita Rest Area).
- Physical and Artifact Evidence From University of Oregon Studies Along Applegate Trail Around JA-H-2A Harris Cabin Site.
- Physical east-west ridge analysis and Trail avoiding ridges or passing through them in a minor saddle and draw.

Yes - Correlation Rule - Overall Agreement/Correlate. There must be overall agreement between all types of evidence; i.e., the evidence resulting from the first three cardinal rules have to be mutually supporting (not contradicting one another) in order to verify the location of a trail segment.

- After extensive research for the surrounding area of one mile north and south of the EI-5Man site, there is no conflicting evidence to a mountain of mutually supporting evidence.
- There is overall agreement between all types of evidence analyzed through the lens of the first three cardinal rules.

3. Conclusion The two trial location hypotheses are considered accurate and verified for the EI-5Man Site. Although the evidence is indirect, it is significant and substantial demonstrating linear conformity, confirming evidence in the form of *Trail* artifacts, and collateral topographic evidence. The mutually supporting evidence has no known detractors in the form of conflicting evidence.

C. Evidence Not Mutually Supporting

1. MET Manual Procedures It is even more important to follow the MET process in examining and documenting all the relevant evidence when it is not mutually supporting.

How does one determine the relative reliability of different types of evidence when different kinds of evidence conflict (MET Manual pages 4 - 12)? The MET identified types of evidence used to verify trail location with their rank order reflecting the relative reliability of available evidence (Appx. G; MET Manual pages 5 - 8; ATSP, p. 3).

The conclusion of the MET Manual states the quandary of “evidence not mutually supporting” well (MET Manual page 12; ATSP, Appx. F). Some highlights follow (Sec. I.B.2).

The MET guidelines for determining trail remnants and segments can not cover all situations. Even the most experienced trail trackers encountered puzzling anomalies leading to unanswerable questions. Quite often there is no obvious explanation why no visible trace remains when it can be established beyond doubt that the trail passed that

way. There is much to learn about the conditions that have led to the survival of some trail traces and the disappearance of others.

Most trail segments that remain visible today have been impacted by man and nature during the post-emigrant period.

The [OCTA] Mapping Committee is convinced that careful adherence to the MET research and investigative procedures will lead to increased accuracy in locating and verifying emigrant trails. All experienced trail mappers have learned that the more research and field verification they conduct the more questions they raise. Involving other trail experts is always helpful in resolving conflicting evidence or seemingly unanswerable questions. No single person is capable of furnishing all the answers. The more questions and alternatives that are raised and reviewed, the closer the record comes to being an accurate representation of the past.

The MET program is open-ended. It is designed to allow for doubts and to provide for corrections and additions as new materials and evidence come to light. History is a matter of building upon what has gone before. What research has the highest degree of probability? All mapping endeavors should be considered as the opening of an on-going dialogue. That's the historical process at work.

2. No Conflicting Evidence The HETC's research, mapping, and marking of the EI-5Man Site in the Big Ugly did not result in the discovery of any conflicting evidence from members of the HETC (Chpt. VI), or other sources. It was unlike the majority of the HETC's previous work dealing strictly with GLO and DLC surveys. The average distance between GLO sections line surveys (i.e., surveyed *Trail* sites) is about a mile. The rest of the unsurveyed GLO area was within the boundaries of a section and considered the "*Big Ugly*" by the HETC (*Standards: Emigrant Trail Inventories and Decisions - Standards*).

It is anticipated that there will be more questions and unknowns between members of the HETC as they start to conduct more research in the "*Big Ugly*." This is why it is critical for continued quality team work to follow the MET process, and the HETC's guidelines. The questions and unknowns can be addressed in a relatively objective environment where the issue is not right or wrong, but compliance with the MET process. The HETC must be diligent in following all seven of the MET Compliance Standards (CS), especially MET CS 1 (i.e., Examine and Document All the Relevant Written, Cartographic, Physical, and Artifact Evidence), in the emigrant wagon road verification process (Sec.s I.B.1 and I.C.1).

3. No Minority Reports All active members of the HETC were asked to identify any know conflicting evidence and write a minority report as needed (Chpt. VI). No conflicting issues were identified, and no minority reports were written.

D. Conclusion: MET Verified

A MET Manual compliance analysis was conducted for the EI-5Man Site. There was a substantial amount of indirect evidence supporting the EI-5Man Site as a location along the Applegate Trail. However, the bottom line is that without the credibility of the GLO surveyors, the reliability of the 1855 GLO survey notes for JA-3, JA-4, JA-5, JA-6, and JA-7, and the 1856 GLO survey map, the verification determination would fail to demonstrate the EI-5 Site was a segment of the *Trail*.

No evidence was discovered that was not mutually supporting, or conflicting, and no minority reports were written.

In summary, this MET analysis supports the conclusion that the EI-5Man Site is a verified site of the Applegate Trail.

IV. EAST I-5 MANZANITA REST AREA TRAIL SITE CLASSIFICATION CATEGORY

Chapter IV lists the five trail classification categories in the OCTA management scheme and comes to a recommended conclusion for the trail classification category of the East I-5 Manzanita Rest Area Site.

Full Name: Non-Surveyed Applegate Trail Site: East I-5 Manzanita Rest Area Site
Common Name: East I-5 Manzanita Rest Area (EI-5Man Site)
OCTA Code: OR-AT-00-35-06-N/A-NN/A-JA-N/A

A. Classification Categories

Trail Classification (Appx. H)

- Class 1 - Unaltered Trail. It retains its original character.
- Class 2 - Used Trail. It retains elements of its original character, but shows use by motor vehicles.
- Class 3 - Verified Trail. It is accurately located and verified, but trail traces are nonexistent or insignificant.
- Class 4 - Altered Trail. It is verified, but elements of its original condition are permanently altered.
- Class 5 - Approximate Trail. It is obliterated or unverifiable that its location is known only approximately.

B. Conclusion

The East I-5 Manzanita Rest Area Site (EI-5Man Site) has a OCTA trail classification of Class ④ Altered Trail (Appx. H).

Class 4: Altered Trail

Symbol: ④

Description: The trail location is verified but elements of its original condition have been permanently altered, primarily by road construction, such as widening, blading, grading, crowning, graveling, or paving. In some cases, the original trail has been permanently altered by underground cables and pipelines.

Preservation: Although an altered trail no longer contributes to the integrity of design, setting, materials, workmanship, feeling, or association, a protective corridor may be desirable in some area as a way to retain the trail integrity of adjacent or connected Class 1, 2, or 3 segments.

Use: Generally unrestricted. However, in protected corridors, use should be consistent with maintaining the integrity of adjacent or connected Class 1, 2, or 3 segments.

The interesting anomaly with this classification is that the site retains some of its original oak savanna character. At the northern end of the East I-5 Manzanita Rest Area is a small grove of oaks cleared of underbrush. Except that this little grove is landscaped and maintained clean of other vegetation, it could easily resemble the natural oak grove just to the east of the rest area across from, and adjacent to, Highland Avenue. This natural brushy oak grove could resemble the old Native American maintained oak savanna character with a couple of modern “kid” experiments with fire.

V. HUGO EMIGRANT TRAILS COMMITTEE

Full Name: Non-Surveyed Applegate Trail Site: East I-5 Manzanita Rest Area Site
Common Name: East I-5 Manzanita Rest Area (EI-5Man Site)
OCTA Code: OR-AT-00-35-06-N/A-NN/A-JA-N/A

A. Summary Observations of HETC

The active members of the HETC meet Monday, April 6, 2015, 9:00 a.m., at the home of Jim and Rene Ford, Co-Project Leaders of the HETC. The HETC's preliminary observation of the "Applegate Trail Site: East I-5 Manzanita Rest Area" (EI-5Man Site) was that it was a credible site along the *Trail*. The large amount of supporting evidence had been researched for over a decade. This is an interesting site as there are no specific supporting GLO/DLC survey(s); diary/journal/ reminiscences; or physical/artifact evidence for the EI-5Man site (i.e., potential location of professional signage under potential MOU with NPS; Sec. - Introduction).

1. Evidence Mutually Supporting The supporting evidence that the EI-5Man Site is part of the *Trail* was substantial (Sec.s II.A; III.B.2.a)).

2. Verification Analysis The verification analysis for the EI-5Man Site was credible in its conclusion that the site was a verified location of the *Trail* (Sec. III.B). It included a section of guidelines for wagon trails and the ranking reliability of the significant supporting evidence used to verify the EI-5Man Site (Appx. G; Table 1).

3. No Conflicting Evidence The HETC's research, mapping, and marking of the EI-5Man Site did not result in any identified conflicting evidence from members of the HETC, or other sources, and no minority reports were filed or anticipated (Sec.s II.B & III.C).

4. Future Studies & Interpretive Trail The question of whether the HETC should propose an interpretive trail remained unanswered as of May 28, 2015 (Sec. II.A.7.d); Chpt. VI; & Appx. D5). The signage being considered for the EI-5Man Site could be in one or two phases. The basic Phase One Signage would be located in the East I-5 Manzanita Rest Area. Phase Two Signage would be an interpretive trail connected to the signage in the rest area, but also located outside the rest area to the north as an interpretive trail.

There is a question of future archaeological studies beyond the subsurface reconnaissance studies already conducted. Should additional Phase III Investigations and data recovery studies, the most intensive, and intrusive level of archaeological studies, or something similar, be completed prior to the HETC recommending an interpretive trail from the rest area north along the *Trail* to the Harris cairn and beyond to the vicinity of JA-7? Kelly Rarey and Mike Walker, members of the HETC, remembered the discussion with the OMNCH staff about this question. The issue was vandalism and degradation of the *Trail* resources, especially the Harris cabin site, after public interpretation (Appx. D5).

If additional studies are not required, or necessary, the signage project could be a combination of both phases. If additional studies are recommended, the project would be the basic Phase One Signage. However, the professional signage could include the potential interpretive trail in the Phase One Signage.

B. Conclusion: MET Verified, Or Not

A large amount of supporting evidence for the EI-5Man Site had been researched, analyzed, mapped, and marked for over a decade by the HETC. At a later date prior to the HNAHS Board considering any proposed MOU, the HETC will make the following decisions (interpretive opinions).

1. Decision #1. The MET process had been followed, or not.
2. Decision #2. The verification analysis examined and documented all the relevant written, cartographic, physical, and artifact evidence, or not.
3. Decision #3. Except for MET CS 7 (Mapping), the verification analysis was in compliance with the other six MET compliance standards.
4. Decision #4. Based on the EI-5Man Site verification analysis the site is a credible Applegate Trail site, or not.
5. Decision #5. Other decisions?

VI. COMMENTS

A MET verification analysis was performed for the EI-5Man Site's preferred hypotheses (Chpt. III). At this time the researcher had not discovered any conflicting evidence or not mutually supporting evidence, and the null hypotheses was eliminated along with other supporting hypotheses down to two preferred hypotheses for analysis.

- Primary Hypothesis: EI-5Man Site existed ca., 1846 through a least 1895.
- Secondary Hypothesis: 1895 Official Map of Josephine County is accurate for the EI-5Man Site.

The conclusion of the researcher, with a high degree of probability, is that the hypotheses were verified that the EI-5Man Site is a verified *Trail* site. The following is a chronological list of information sharing events, and a summary of the opportunities to review and comment by members of the HETC.

On March 31, 2015 Mike Walker, Member, HETC, accepted the task of verifying the *Trail* site at EI-5Man Site using OCTA's *Mapping Emigrant Trails (MET) Manual* procedures for verification analysis and documentation.

Walker, Lead MET Verification Process Researcher and Writer, HETC, for the for the Non-Surveyed Applegate Trail Site: East I-5 Manzanita Rest Area, contacted all active members of the HETC on April 6, 2015 during a HETC meeting at Fords (i.e., meeting participants: Jim and Rene Ford, Joe and Leta Neiderheiser, Kelly Rarey, Bob Black, and Mike Walker).

The purpose was twofold: 1. to share preliminary MET verification results with the HETC that the site had a high probability of being verified, and 2. to alert them that he was investigating knowledge of any known evidence not mutually supporting the EI-5Man Site, conflicting evidence, and potential minority reports. The members of the HETC present at the meeting were of the opinion that the EI-5Man Site would probably meet the MET compliance standards. Jim Ford referenced unknown information that might be in 1870 survey and/or one the Oregon Highway Department strip maps.

The HETC is composed of two sub-committees: 1. Diaries, Journals & Reminiscences Sub-Committee, and 2. General Land Office Field Survey Sub-Committee (GLO SubCommittee). It acts as an ID team.

In anticipation of a request by the NPS to sign a *Trail* signage memorandum of understanding (MOU) this summer, Walker's goal was to finalized the EI-5Man Site verification analysis by June 2015.

On April 13, 2015 Kelly Rarey and Mike Walker talked about the East I-5 Manzanita Rest Area. Rarey wondered, "What would U.S.G.S. maps show before I-5 was built?" What about the ridge, on the west side of I-5 just south of the West and East I-5 Manzanita Rest Areas, that looks

like it had been cut through when I-5 was built? This discussion resulted in the east-west ridges analysis (Sec.s II.A.3.b), III.B.2.a) & b); & Map EI-5Man 4b).

On April 13, 2015 Jim Ford and Mike Walker talked over the telephone about the East I-5 Manzanita Rest Area. Ford stated that the 1879 survey route was not in the rest area. He was not sure about Oregon Highway Department strip maps, but he would check.

On May 13, 2015 Bob Black and Mike Walker had a discussion on the ranking the reliability of evidence used to verify trail location (Sec. I.B.2). They concluded that it would have been helpful to have an approach, treatment, and/or methodology as guidelines for using the MET CS 4 results described in the MET (Sec.s I.B.2; II.A.7.d). They also had some refinements to the reliability list of evidence used to verify *Trail* locations. For example, the MET lists GLO surveys and plats as #4 in reliability (Appx. G). Bob and Mike felt that when the GLO surveyors and surveys had been determined to be credible (Appx. I), that the surveys are eyewitness descriptions that locate the *Trail*, and they should be ranked #1 along with detailed diaries.

On May 13, 2015 the active members of the HETC were notified by email that this document would be web published on May 15, 2015 as a draft for review.

On May 15, 2015 this draft document was web published as a draft for review by the HETC. On that same date active members of the HETC were notified by email that the verification analysis was web published.

On May 16, 2015 Jim and Rene Ford and Mike Walker met at the Ford's home. Jim shared information about the lack of a survey for the Harris DLC and that it was because the survey was made up of aliquot parts of the GLO survey. A section was added on this topic (Sec. II.A.1.3a)). The Fords' independent verification analysis would be finished soon. The Fords informed Walker that the projected date for signing the MOU is now the fall, perhaps September 2015.

On May 18, 2015 Walker contacted the Neiderheisers by telephone. Leta explained that she and Joe had been preoccupied with out-of-town business. She would review the web published MET analysis. On May 20, 2015 she responded via email "A+ for research and documentation." She agreed with the MET verification for the EI-Man Site and would support having an interpretive sign placed in the East I-5 Manzanita Rest area.

Comments on this document entitled, "*Non-surveyed Applegate Trail Site: East I-5 Manzanita Rest Area Met Verified,*" will be accepted through the end of the comment period which is May 31, 2015. In order to be considered in the final document, comments must be received by the deadline.

The HETC's review and comment period was two weeks, from May 15 - 31, 2015. Comments received after May 31, 2015 will not be used in making changes to the draft document. These comments will be considered supplemental and considered by the HETC as it deems appropriate.

The researcher/author welcomed comments from active members of the HETC on the content of this document. Of particular interest were comments that address one or more of the following:

1. new information that could affect the MET verification analysis,
2. possible improvements in the verification analysis, and
3. suggestions for improving or clarifying the potential verification conclusion by the HETC (interpretive opinion).

Send any comments to Mike Walker.

Mike Walker, Member
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Hugo Neighborhood Association & Historical Society
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541-471-8271
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Web Page: <http://jeffnet.org/~hugo/>

The following members of the HETC reviewed and commented on the verification document by May 31, 2015: Jim Ford, Rene Ford, and Leta Nederheiser. Their comments can be summarized as recommending approval to the HETC that the EI-5Man Site is a credible Applegate Trail site.

On June 2, 2015 Walker emailed the active members of the HETC that the comment period was closed and the final verification document would be web published by June 5, 2015.

This final verification document was web published June 5, 2015. At the date of final publication Walker's accepted task to complete a MET verification analysis was completed.

On June 5, 2015 Walker emailed the active members of the HETC that the final verification document, which had substantial editing and rewrite since the draft publication on May 15, 2015, was web published. The conclusion recommendation had not changed that the EI-5Man Site is a verified *Trail* site.

It was now time for the HETC to consider the verification recommendation that the EI-5Man Site was a verified location of the *Trail* (Sec. III.B; Chpt. V).

The following three related documents are publicly available for review and comments at Hugo's web page.

1. Table 1. *Trail At East I-5 Manzanita Rest Area Site (EI-5Man Site):*
MET CS 4 Rank Reliability of Different Types of Evidence Used to Verify Trail Location
(For *Non-surveyed Applegate Trail Site: East I-5 Manzanita Rest Area Met Verified*)
2. Maps For *Non-surveyed Applegate Trail Site: East I-5 Manzanita Rest Area Met Verified*
3. Analysis Paper: *Non-surveyed Applegate Trail Site: East I-5 Manzanita Rest Area Met*

Applegate Trail Inventory
Educational Resources

Hugo Neighborhood Association & Historical Society

http://www.hugoneighborhood.org/miscellaneous_research_papers_and_documents.htm

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