

Strategic Freight Transportation Analysis

Presentation
to
SFTA Steering Committee

“Transportation Characteristics of the Washington Wine Industry”

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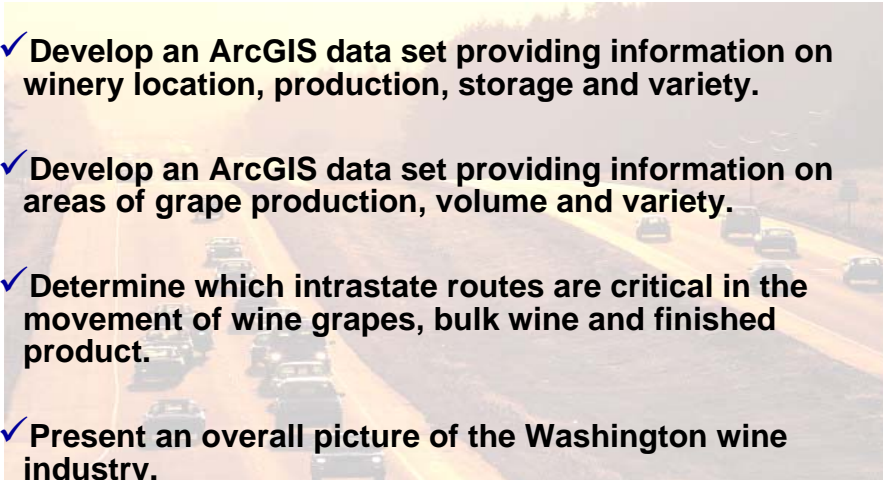
Road Map.....

- ✓ **Study Objectives**
- ✓ **Collecting Information**
- ✓ **Data**
- ✓ **Results and Findings**
- ✓ **Conclusions**



Objectives

- ✓ **Develop an ArcGIS data set providing information on winery location, production, storage and variety.**
- ✓ **Develop an ArcGIS data set providing information on areas of grape production, volume and variety.**
- ✓ **Determine which intrastate routes are critical in the movement of wine grapes, bulk wine and finished product.**
- ✓ **Present an overall picture of the Washington wine industry.**



Collecting Information

This research project utilized data from a large selection of sources.

- Wine Industry Publications
- Research Reports
- Freight Truck Origin and Destination Survey
- Phone and Email Correspondence

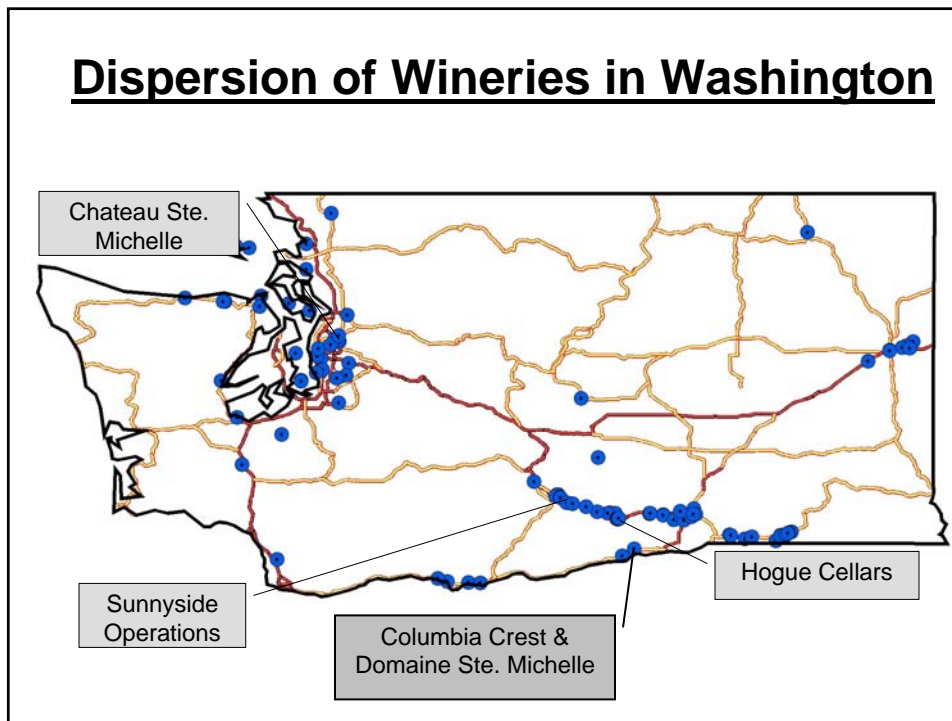
The Washington Wine Industry

- **The Washington Wine Industry generates \$2.4 billion dollars annually!**
- **Washington wine has grown substantially in the past 20 years, placing it second only to California in total production**
 - **The number of wineries has grown from 19 in 1981 to over 200 today (>100 since 1997)**
 - **The wine grape acreage in Washington has grown to 28,000 acres (Around 2000 in 1981)**

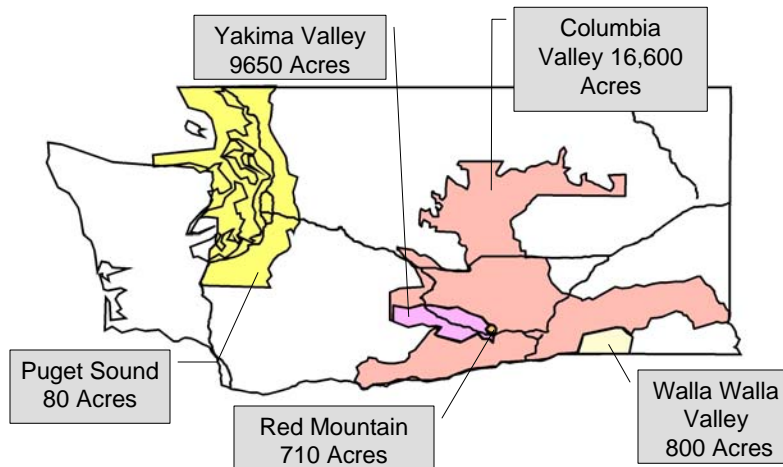
The Washington Wine Industry

- Washington follows concentration patterns similar to the national wine industry
 - The top 5 wineries in Washington produce 76% of the total product
 1. Columbia Crest: 1,662,020 Cases
 2. Chateau Ste. Michelle: 641,400 Cases
 3. Hogue Cellars: 450,000 Cases
 4. Domaine Ste. Michelle: 448,000 Cases
 5. Sunnyside Operations (Apex Cellars, Washington Hills): 360,000 Cases

Dispersion of Wineries in Washington



American Viticultural Areas



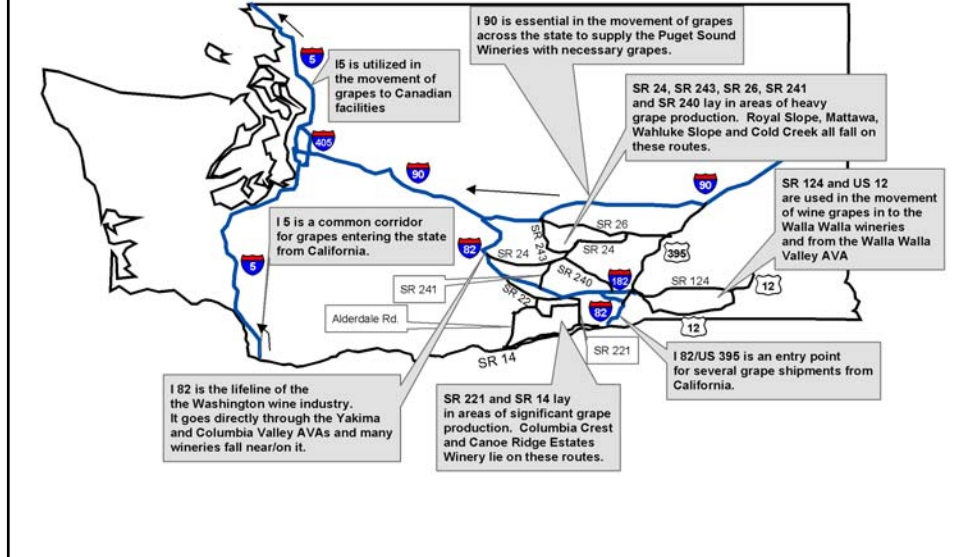
AVA Name and Total Wine Grape Acreage

Wine Transportation

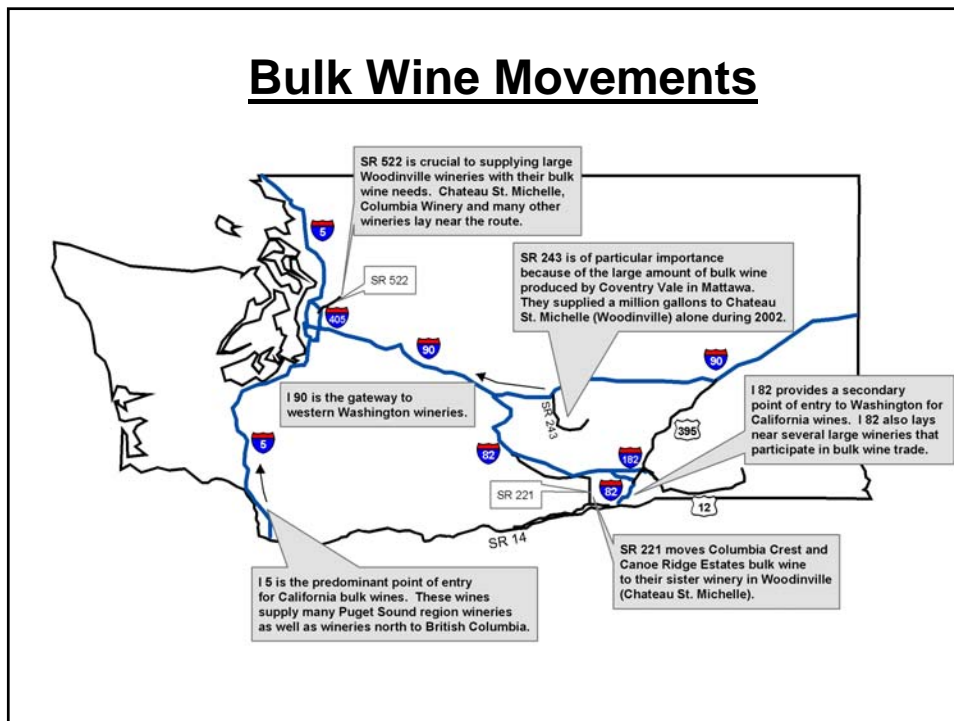
The transportation of wine can be broken down into 3 categories

1. **Wine grape movements**
 - Average payload weight 30,123 lb.
 - Typically use van style trailers
2. **Bulk wine movement**
 - Average payload weight 37,200 lb (range between 30,000-50,000 lb)
 - Wine carried in tankers
3. **Finish wine product movement**
 - Average payload weight 41,469 lb
 - Use van style trailers

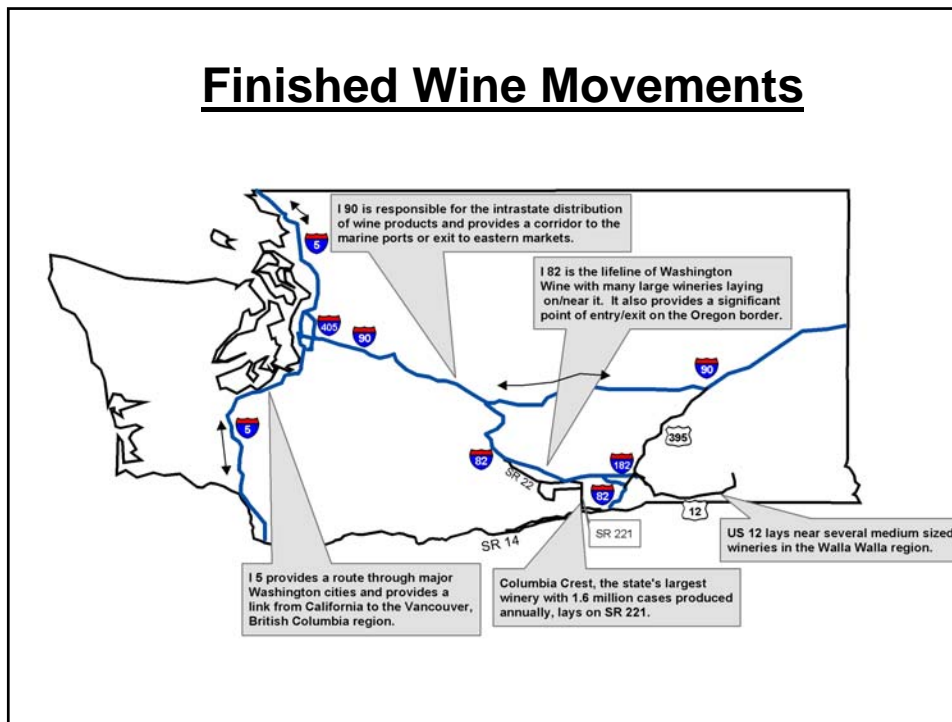
Wine Grape Movements



Bulk Wine Movements



Finished Wine Movements



Conclusions

- **The Washington wine industry has outpaced growth in other markets and placed increasing stress on the transportation system.**
- **Because of a high concentration ratio and production focused in only a few key areas, stress on roadways is concentrated on a core of routes.**
- **Additional truck traffic occurs during the grape harvest months of August through November causing congestion in some rural areas.**

