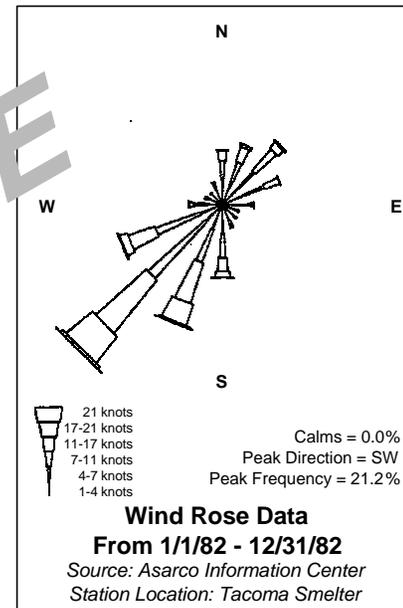
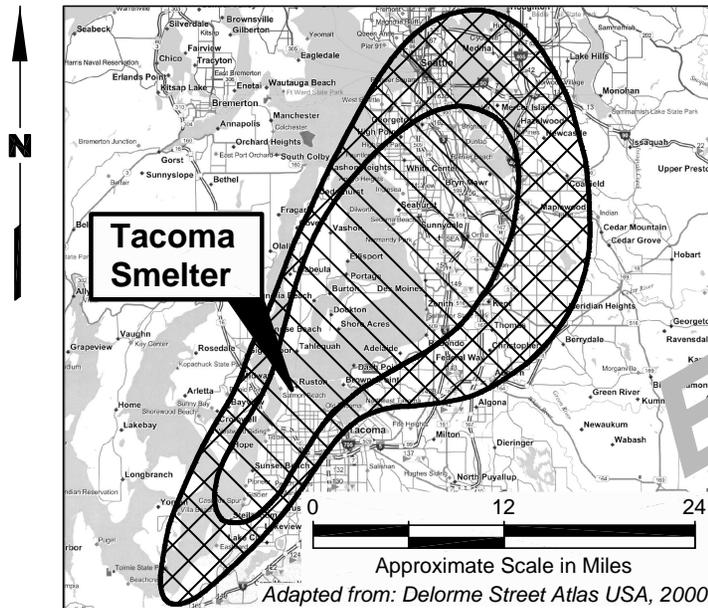


Figure I-1: Estimate of Area Affected by Historical Tacoma Smelter Emissions with Wind Rose Diagram of Predominant Wind Directions at the Smelter Site (Based on Data Available as of January 2003)



EXAMPLE

Legend

-  Level 1: Area where shallow undisturbed soil likely exceeds 20 mg/kg Arsenic
-  Level 2: Area where shallow undisturbed soil occasionally exceeds 20 mg/kg Arsenic

Data Sources:
Ecology, 2002
Glass, 2002

Disclaimer

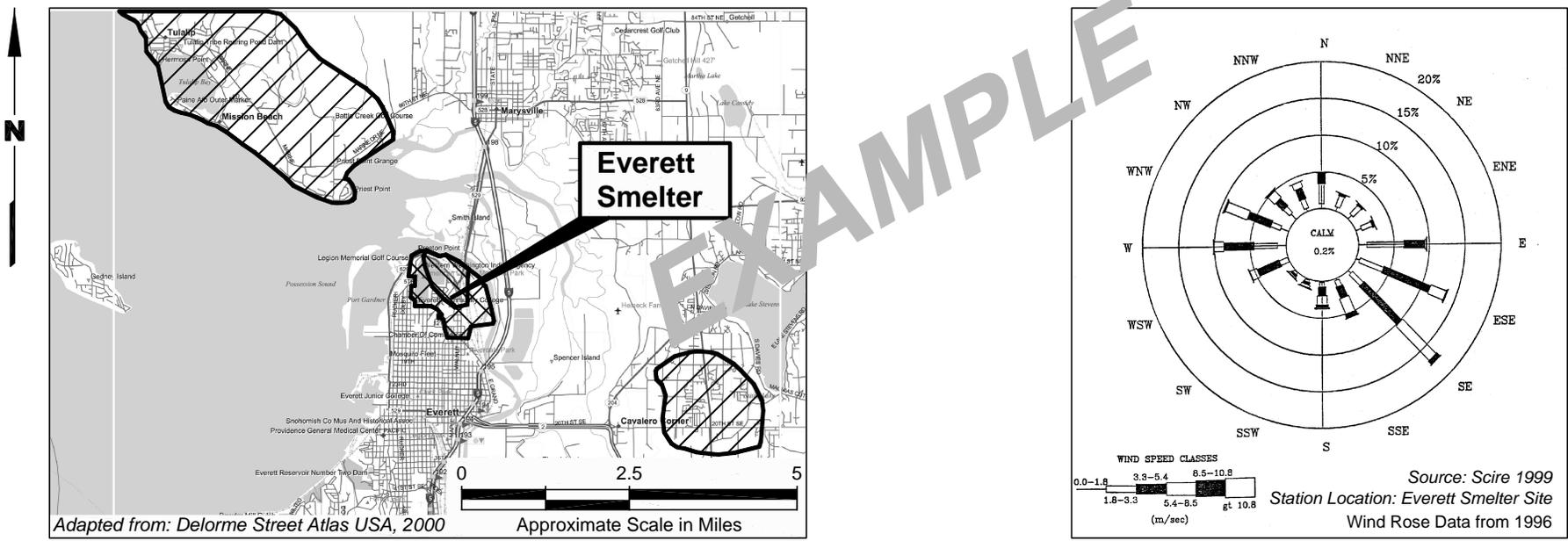
This map should not substitute for a site-specific assessment. Not all of the areas identified on the map will actually have elevated levels of arsenic and lead in soil. Some properties outside of the identified areas may have elevated levels of arsenic and lead in soil.

The map of the area affected by smelter emissions was originally developed in 2003 for the report "Area-wide Soil Contamination Project, Task 3.4: Preliminary Estimates." They are based on information available at that time and are intended to provide a general indication of where elevated levels of arsenic and lead in soil may be present due to historical smelter emissions, so individuals and communities can assess whether to look into additional information on area-wide soil contamination.

Interpreting a Wind Rose

A wind rose is a quantitative graphical summary of the wind direction and speed for a given time. The wind rose diagram shows the number of hours (expressed as a percentage) that the wind blew from a particular direction and speed. The wind rose spokes or arms represent 16 points of the compass. The length of each segment of a spoke represents the percentage of time the wind speed was within a specific speed interval for a particular direction (the longer the spoke, the greater the time that the wind blew from that direction). If summed for all wind directions, the result would provide the percentage of all hours the wind speed was measured within a specific interval. The percentage of time when the winds were light and variable is shown in the center of the rose.

Figure I-2: Estimate of Area Affected by Historical Everett Smelter Emissions with Wind Rose Diagram of Predominant Wind Directions at the Smelter Site (Based on Data Available as of January 2003)



Legend

-  Level 1: Area where shallow soil likely exceeds 20 mg/kg Arsenic
-  Level 2: Area where shallow soil occasionally exceeds 20 mg/kg Arsenic
-  Level 3: Area where modeling predicted most likely particulate deposition from former furnace stack

Data Sources:
Ecology, 1999
Scire, 1999

Disclaimer

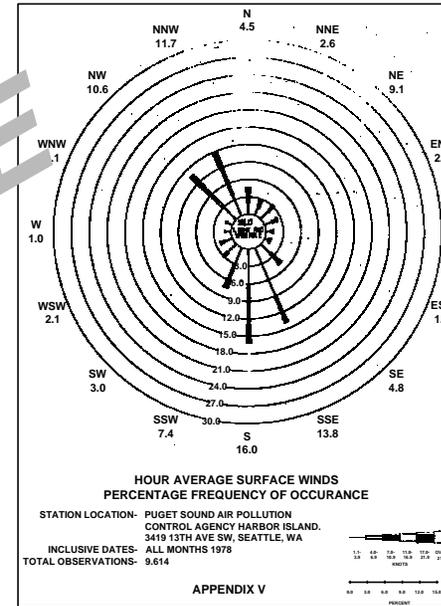
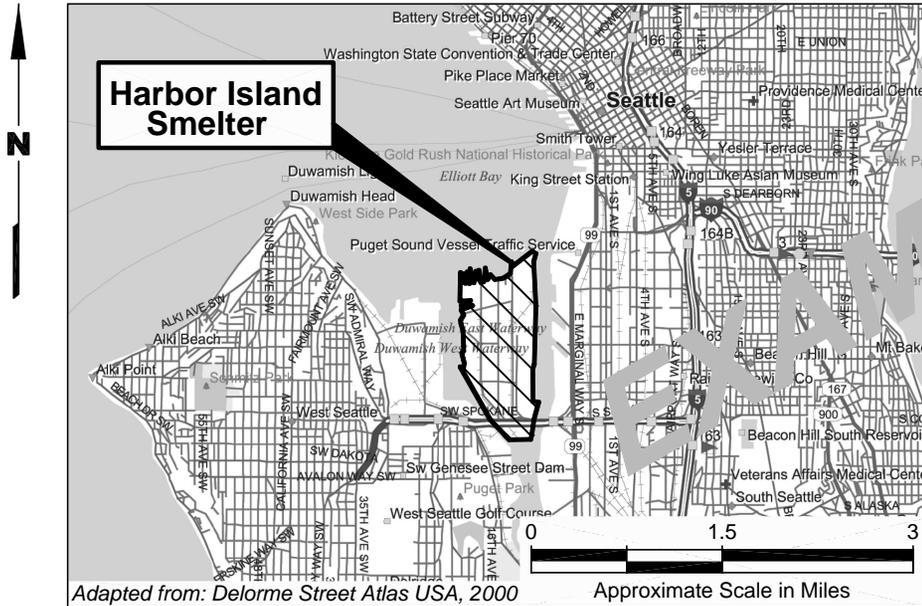
This map should not substitute for a site-specific assessment. Not all of the areas identified on the map will actually have elevated levels of arsenic and lead in soil. Some properties outside of the identified areas may have elevated levels of arsenic and lead in soil.

The map of the area affected by smelter emissions was originally developed in 2003 for the report "Area-wide Soil Contamination Project, Task 3.4: Preliminary Estimates." They are based on information available at that time and are intended to provide a general indication of where elevated levels of arsenic and lead in soil may be present due to historical smelter emissions, so individuals and communities can assess whether to look into additional information on area-wide soil contamination.

Interpreting a Wind Rose

A wind rose is a quantitative graphical summary of the wind direction and speed for a given time. The wind rose diagram shows the number of hours (expressed as a percentage) that the wind blew from a particular direction and speed. The wind rose spokes or arms represent 16 points of the compass. The length of each segment of a spoke represents the percentage of time the wind speed was within a specific speed interval for a particular direction (the longer the spoke, the greater the time that the wind blew from that direction). If summed for all wind directions, the result would provide the percentage of all hours the wind speed was measured within a specific interval. The percentage of time when the winds were light and variable is shown in the center of the rose.

Figure I-3: Estimate of Area Affected by Historical Harbor Island Smelter Emissions with Wind Rose Diagram of Predominant Wind Directions at the Smelter Site (Based on Data Available as of January 2003)



Source: PSAPCA 1980
 Station Location: Harbor Island

Legend



Level 1: Area where shallow soil likely exceeds 250 mg/kg Lead

Data Source: Weston, 1993

Disclaimer

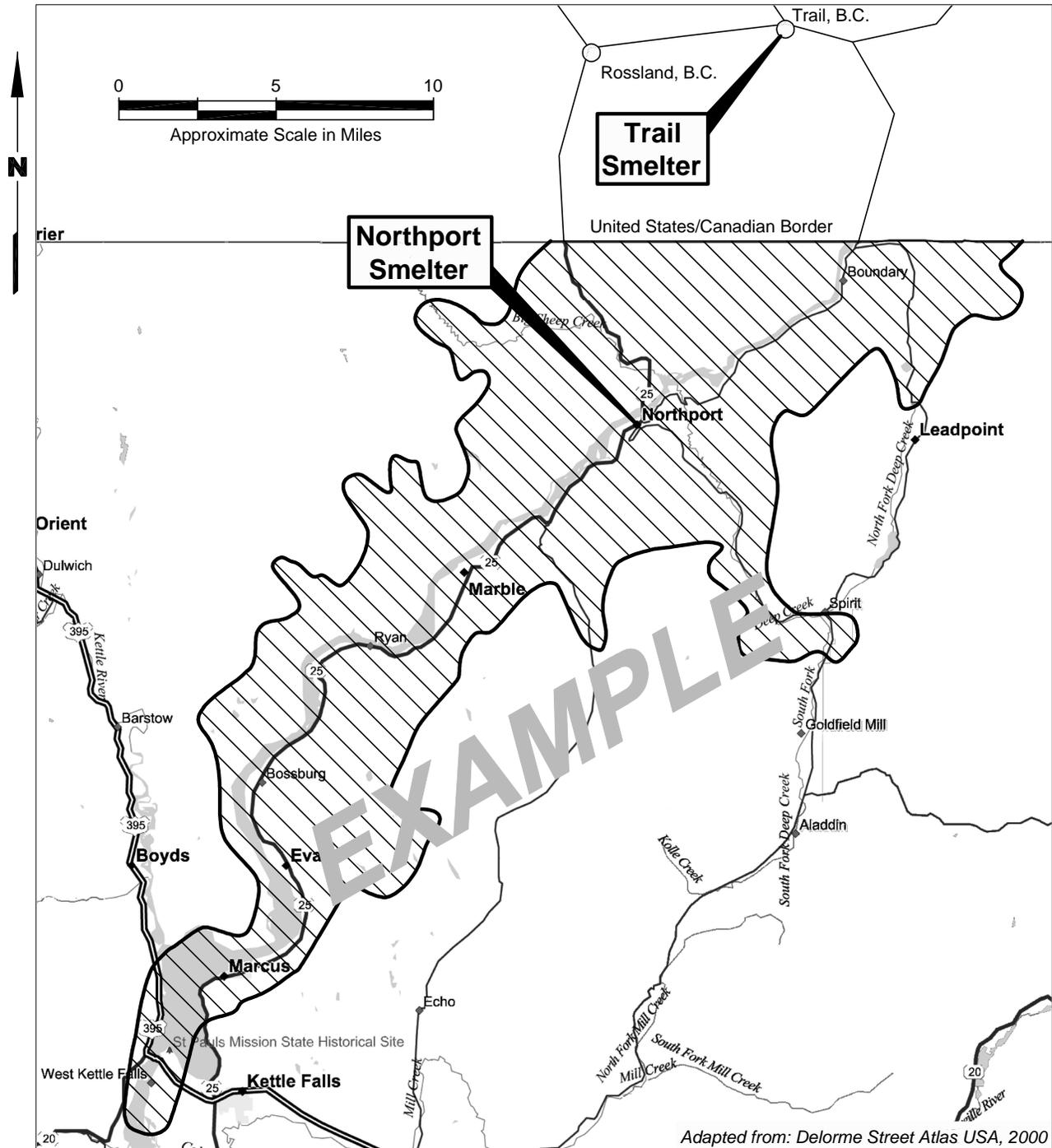
This map should not substitute for a site-specific assessment. Not all of the areas identified on the map will actually have elevated levels of arsenic and lead in soil. Some properties outside of the identified areas may have elevated levels of arsenic and lead in soil.

The map of the area affected by smelter emissions was originally developed in 2003 for the report "Area-wide Soil Contamination Project, Task 3.4: Preliminary Estimates." They are based on information available at that time and are intended to provide a general indication of where elevated levels of arsenic and lead in soil may be present due to historical smelter emissions, so individuals and communities can assess whether to look into additional information on area-wide soil contamination.

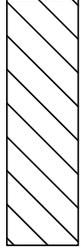
Interpreting a Wind Rose

A wind rose is a quantitative graphical summary of the wind direction and speed for a given time. The wind rose diagram shows the number of hours (expressed as a percentage) that the wind blew from a particular direction and speed. The wind rose spokes or arms represent 16 points of the compass. The length of each segment of a spoke represents the percentage of time the wind speed was within a specific speed interval for a particular direction (the longer the spoke, the greater the time that the wind blew from that direction). If summed for all wind directions, the result would provide the percentage of all hours the wind speed was measured within a specific interval. The percentage of time when the winds were light and variable is shown in the center of the rose.

Figure I-4: Estimate of Area Potentially Affected by Emissions from the Northport and Trail, BC Smelters (Based on Data Available as of January 2003)



Adapted from: Delorme Street Atlas USA, 2000

<p>Legend</p>  <p>Level 1: Area where smelter smoke damage to vegetation documented in 1929. Damage attributed to SO₂ emissions. Source: After Wirth, 2000</p>	<p>Disclaimer</p> <p>This map should not substitute for a site-specific assessment. Not all of the areas identified on the map will actually have elevated levels of arsenic and lead in soil. Some properties outside of the identified areas may have elevated levels of arsenic and lead in soil.</p> <p>The map of the area affected by smelter emissions was originally developed in 2003 for the report "Area-wide Soil Contamination Project, Task 3.4: Preliminary Estimates." They are based on information available at that time and are intended to provide a general indication of where elevated levels of arsenic and lead in soil may be present due to historical smelter emissions, so individuals and communities can assess whether to look into additional information on area-wide soil contamination.</p> <p>The area potentially affected by smelter emissions is only shown for Washington State, not Canada.</p>
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**Figure I-5: Potential Historical Orchard Areas in Chelan County
(Based on Use of the Individual Property Evaluation Flowchart)**

Legend

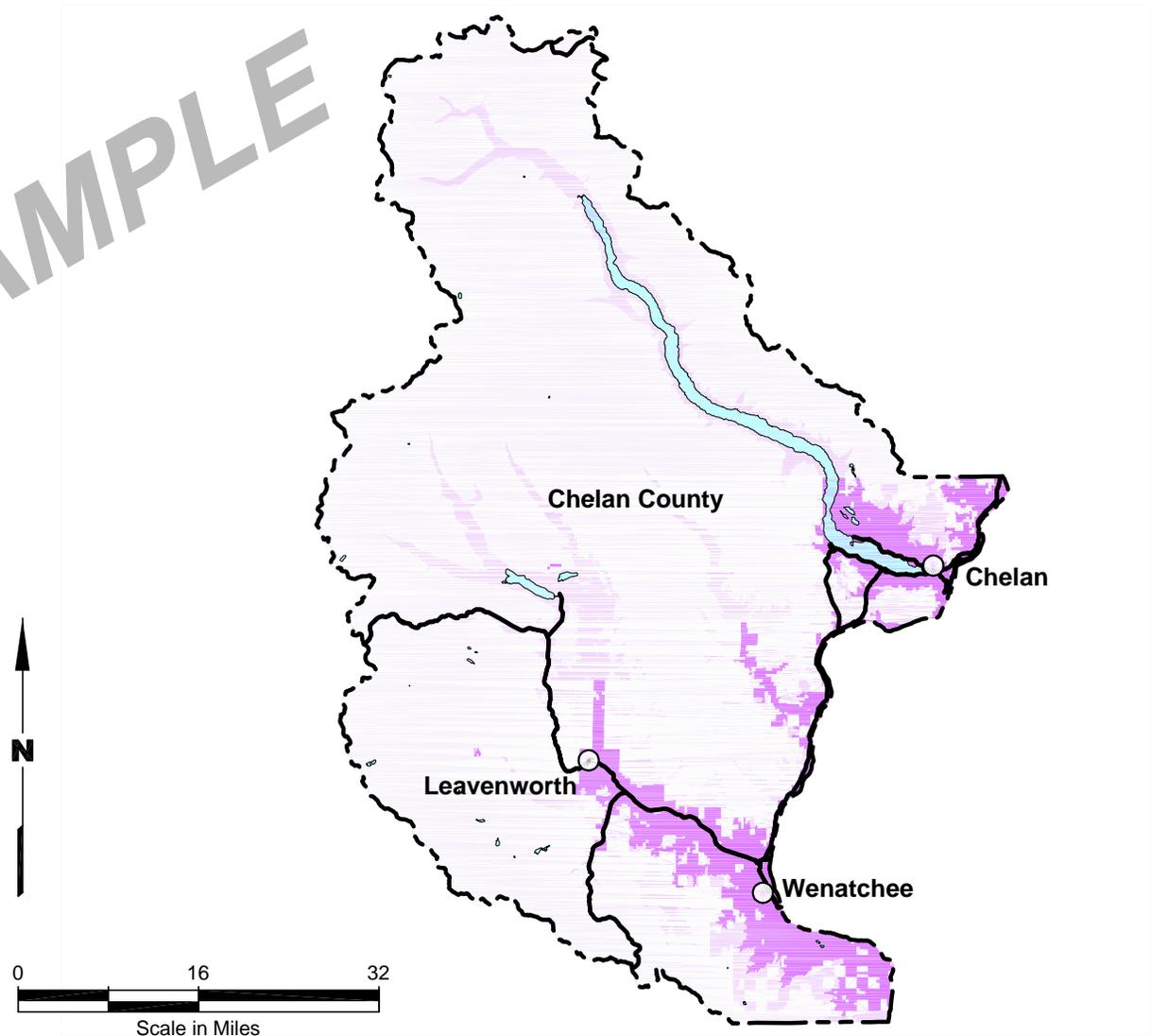
-  Areas where historical orchards may have been located
-  Areas where historical orchards are not likely
-  Cities
-  Lakes
-  Roads
-  County line

Disclaimer

This map should not substitute for a site-specific assessment. Not all of the areas identified on the map will actually have elevated levels of arsenic and lead in soil. Some properties outside of the identified areas may have elevated levels of arsenic and lead in soil.

The areas potentially affected by historical use of lead arsenate pesticides shown in this map were determined by excluding State, Federal and Tribal land and areas with elevations greater than 2,500 feet from the area of the county because these areas are unlikely to have had apple or pear trees grown on them.

This map was developed in 2003 to support the Area-Wide Soil Contamination Task Force. It is based on information available at that time and is intended to provide a general indication of where elevated levels of arsenic and lead in soil may be present due to historical use of lead arsenate pesticides, so individuals and communities can assess whether to look in to additional information on area-wide soil contamination.



**Figure I-6: Potential Historical Orchard Areas in Okanogan County
(Based on Use of the Individual Property Evaluation Flowchart)**

Legend

-  Areas where historical orchards may have been located
-  Areas where historical orchards are not likely
-  Cities
-  Lakes
-  Roads
-  County line

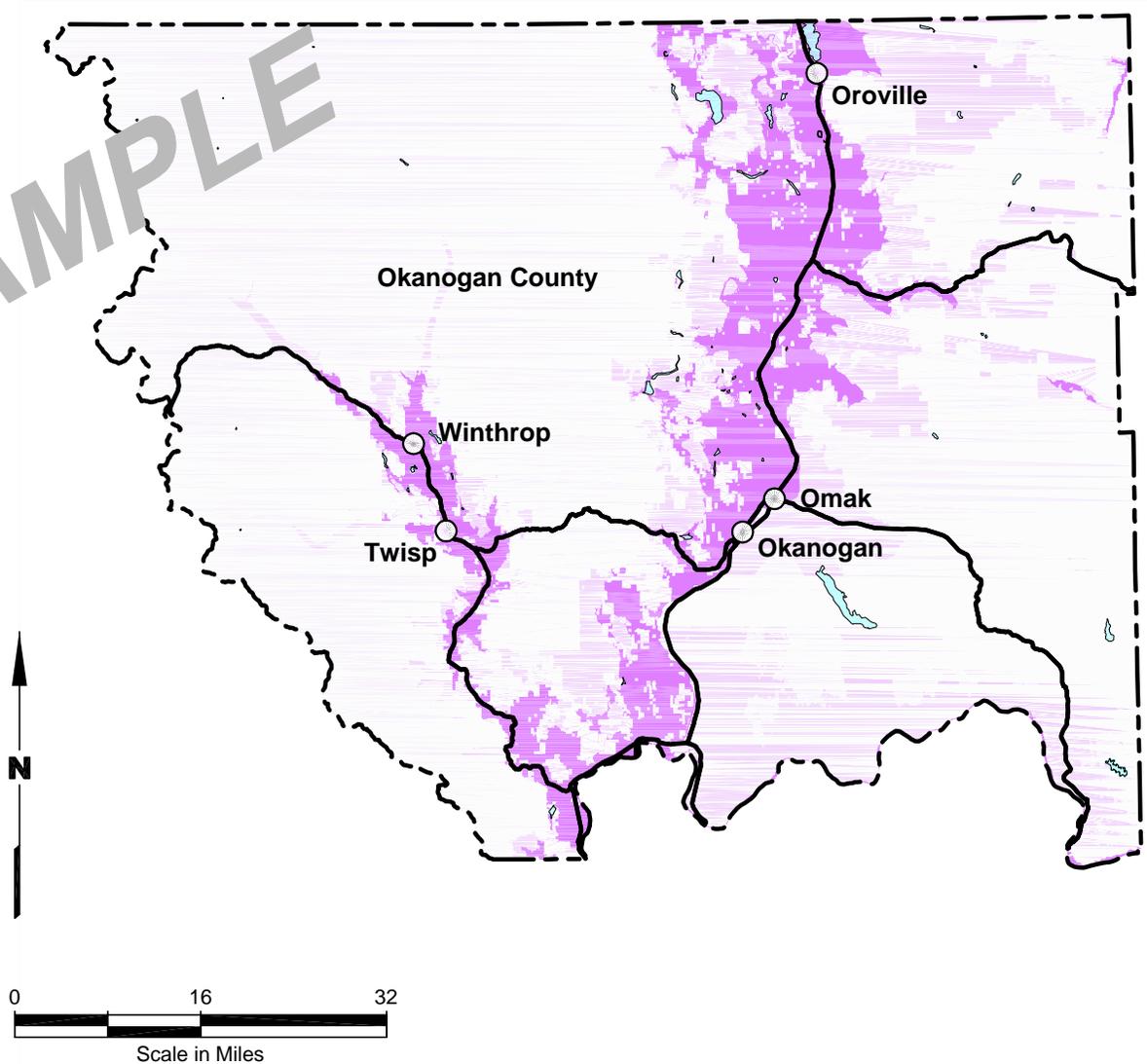
Disclaimer

This map should not substitute for a site-specific assessment. Not all of the areas identified on the map will actually have elevated levels of arsenic and lead in soil. Some properties outside of the identified areas may have elevated levels of arsenic and lead in soil.

The areas potentially affected by historical use of lead arsenate pesticides shown in this map were determined by excluding State, Federal and Tribal land and areas with elevations greater than 2,500 feet from the area of the county because these areas are unlikely to have had apple or pear trees grown on them.

This map was developed in 2003 to support the Area-Wide Soil Contamination Task Force. It is based on information available at that time and is intended to provide a general indication of where elevated levels of arsenic and lead in soil may be present due to historical use of lead arsenate pesticides, so individuals and communities can assess whether to look in to additional information on area-wide soil contamination.

EXAMPLE



**Figure I-7: Potential Historical Orchard Areas in Yakima County
(Based on Use of the Individual Property Evaluation Flowchart)**

Legend

-  Areas where historical orchards may have been located
-  Areas where historical orchards are not likely
-  Cities
-  Lakes
-  Roads
-  County line

Disclaimer

This map should not substitute for a site-specific assessment. Not all of the areas identified on the map will actually have elevated levels of arsenic and lead in soil. Some properties outside of the identified areas may have elevated levels of arsenic and lead in soil.

The areas potentially affected by historical use of lead arsenate pesticides shown in this map were determined by excluding State, Federal and Tribal land and areas with elevations greater than 2,000 feet from the area of the county because these areas are unlikely to have had apple or pear trees grown on them. An area west of Wapato where apple and pear trees have historically been grown is shown as potentially affected, even though it is Tribal property.

This map was developed in 2003 to support the Area-Wide Soil Contamination Task Force. It is based on information available at that time and is intended to provide a general indication of where elevated levels of arsenic and lead in soil may be present due to historical use of lead arsenate pesticides, so individuals and communities can assess whether to look in to additional information on area-wide soil contamination.

EXAMPLE

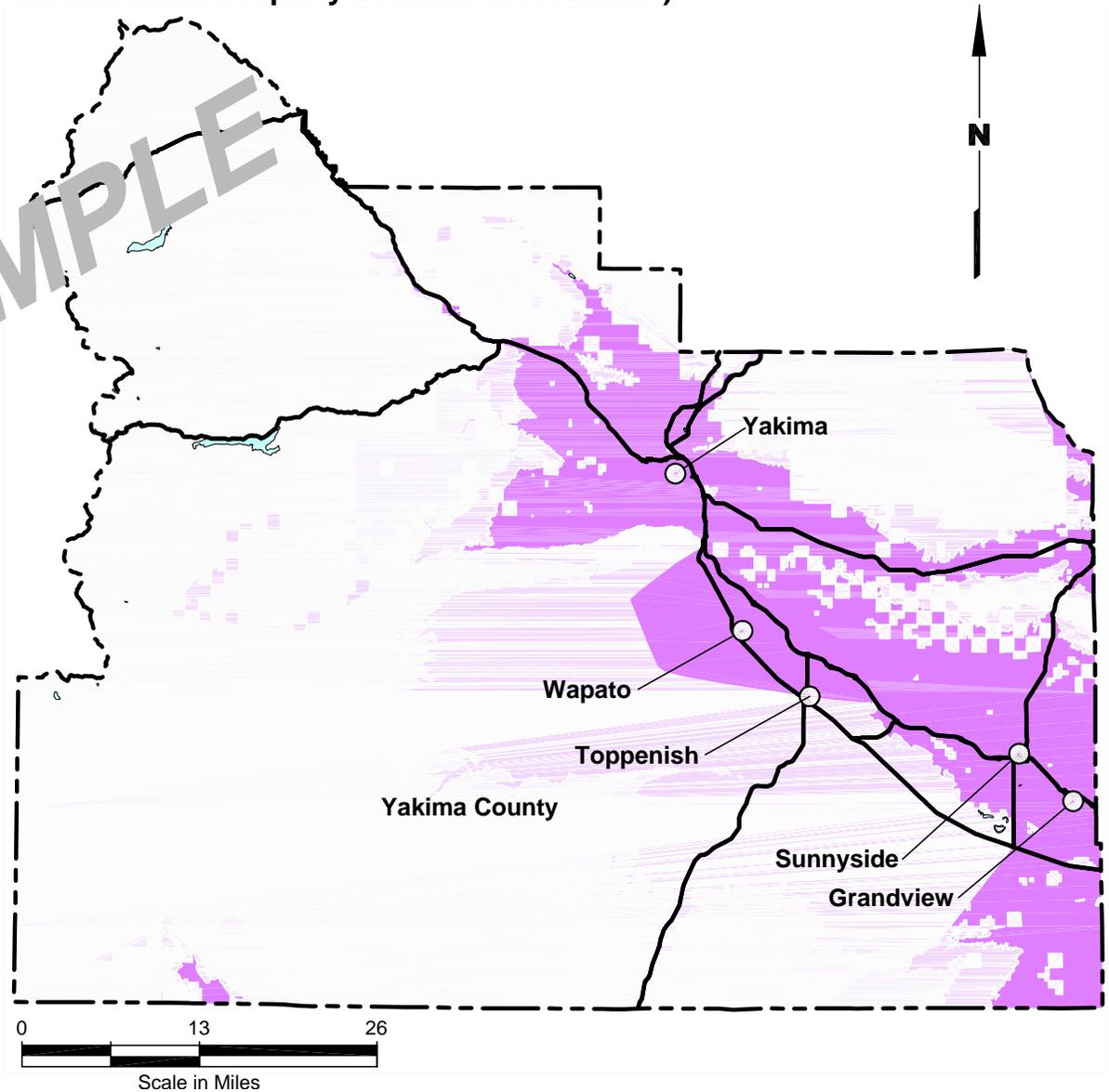
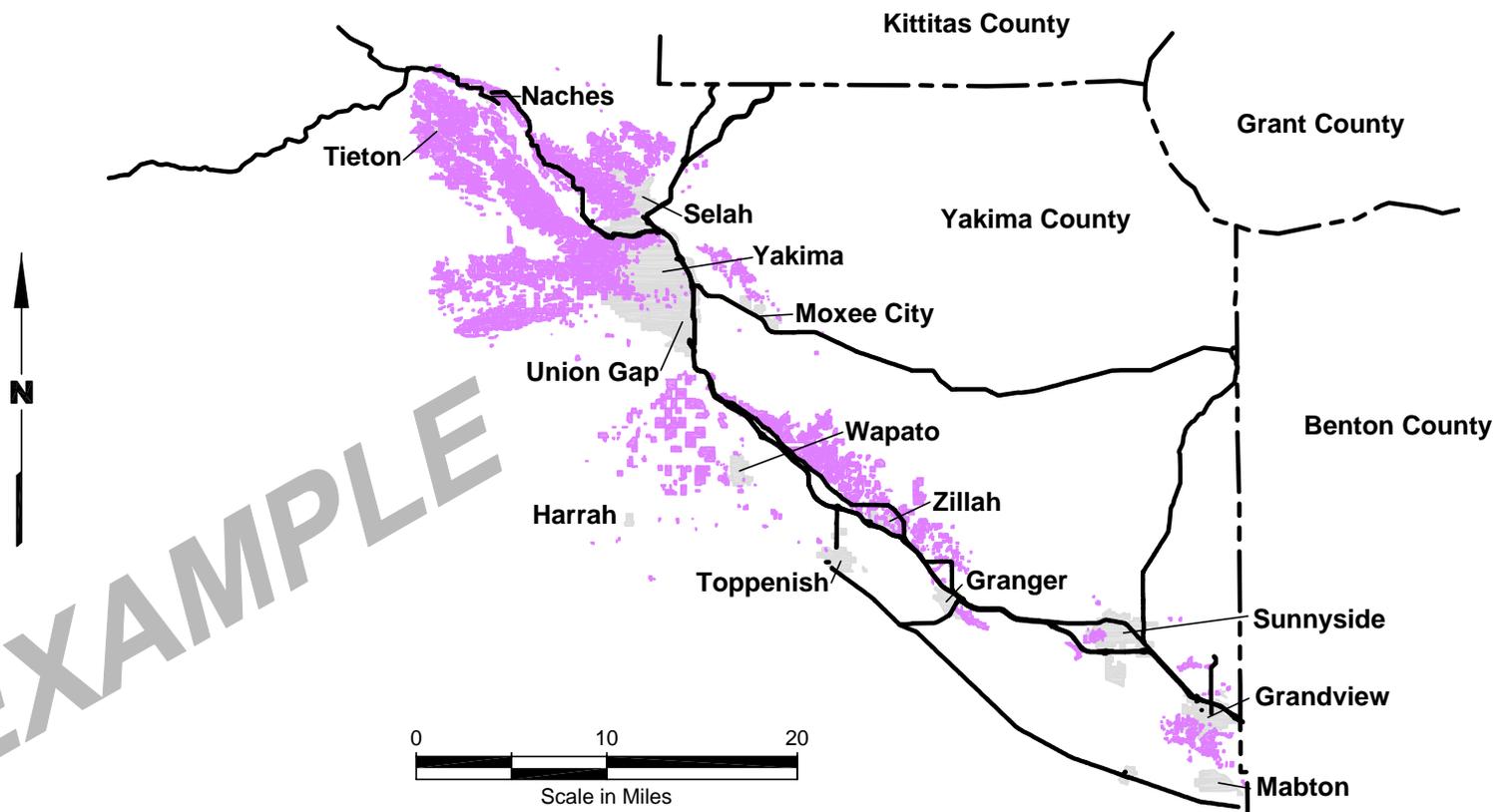


Figure I-8: Historical Orchards in Yakima County Circa 1947



EXAMPLE

Legend

-  State or federal roads
-  1947 Orchard lands
-  Cities

Disclaimer:

This map should not substitute for a site-specific assessment. Not all of the areas identified on the map will actually have elevated levels of arsenic and lead in soil. Some properties outside of the identified areas may have elevated levels of arsenic and lead in soil.

This figure was originally developed in 2000 by the Yakima County Geographic Information Services. It is based upon an analysis of historical aerial photographs and is intended to provide a general indication of where historical orchard areas were located in 1947, so individuals and communities can assess whether to look in to additional information on area-wide soil contamination. This figure does not show the location of all orchards that operated during the period when lead arsenate pesticides were used, 1905-1947.

Figure I-9: Historical Orchards in the Lake Chelan/Manson Area of Chelan County Circa 1947

