DSHS Clients with Mental Health or Substance Abuse Problems and Proximity to Treatment Providers

Density of clients, persons per acre

1.51 - 2.7	0.11 - 0.5
1.01 - 1.5	0.06 - 0.1
0.51 - 1	0.01 - 0.05
	No clients

Service providers

- ● Adult mental health
- ▲ Youth mental health
- ● Adult AOD
- ▲ Youth AOD

10 Miles

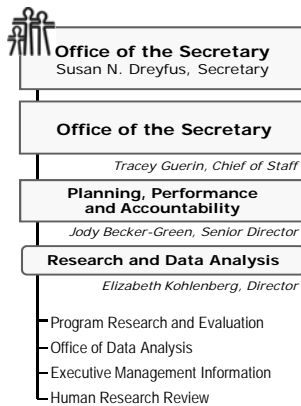**Snohomish County, Washington**

July 2009
Report 11.143

DSHS

Washington State
**Department of Social
and Health Services**

Headquarters located at:
14th and Jefferson Street
Olympia, WA 98504

Office of the Secretary
Susan N. Dreyfus, Secretary

Office of the Secretary

Tracey Guerin, Chief of Staff

**Planning, Performance
and Accountability**
Jody Becker-Green, Senior Director

Research and Data Analysis
Elizabeth Kohlenberg, Director

- Program Research and Evaluation
- Office of Data Analysis
- Executive Management Information
- Human Research Review

RDA

Information about this Publication

Title: DSHS Clients with Mental Health or Substance Abuse Problems and Proximity to Treatment Providers: Snohomish County, Washington.

Abstract: The maps of DSHS clients with mental health or substance abuse problems were prepared to assist the Snohomish county human services planners to evaluate unmet service needs. The maps and analysis address the question: Are there geographic barriers to clients who need treatment for mental health or substance abuse problems?

Overall, mental health or substance abuse treatment providers are located near areas with the highest concentration (density) of clients with mental health or substance abuse problems. Among clients residing in close proximity to treatment providers, relatively fewer clients have unmet treatment needs. However, as the distance to treatment providers increases, the share of clients with unmet needs grows relatively to the share of clients receiving treatment. Communities located at significant distances from providers (10 to 50 miles) carry a double burden: they have a higher share of residents who have mental health or substance abuse problems and these residents need to travel longer distances to access treatment.

Keywords: Snohomish County, DSHS Clients, Mental Health, Substance Abuse, Treatment Provider, Unmet Needs, Geographic Maps

Geography: Snohomish County, WA

Research Time Period: Fiscal Year 2006-2007

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Project Name: Geographic Analysis and Mapping of DSHS Services and Clients

Authors: Irina Sharkova, PhD, Sharon Estee, PhD, and Elizabeth Kohlenberg, Ph.D

Cover Design: DSHS Research and Data Analysis Division

DSHS . . . improving the quality of life for individuals and families in need in Washington State

DSHS currently serves **one in three** state residents

RDA . . . Bringing data and analysis to the decision-making agenda:
- Better work processes
- Better decisions
- Better outcomes

DSHS Clients with Mental Health or Substance Abuse Problems in Snohomish County, WA: Proximity to Treatment Providers.

REPORT 11.143 | **Prepared for the Snohomish County Human Services Department by:** Irina Sharkova, PhD, Sharon Estee, PhD, and Liz Kohlenberg, PhD.

Context

The Snohomish County Human Services Department requested maps and analysis from the DSHS Research and Data Analysis Division (RDA) of where DSHS clients with mental health or substance abuse problems reside in relation to treatment providers. The key analytic question is: Are there geographic barriers to clients who need treatment for mental health or substance abuse problems?

RDA used its Integrated Client Services Database to identify DSHS clients who 1) *had* mental health or substance abuse problems during FY 2006 & 2007, 2) *received treatment* for mental health or substance abuse problems in 2007, and 3) *needed, but did not receive treatment* for mental health or substance abuse problems in 2007 (unmet need). Clients were also grouped into 4 categories: those with 1) mental health **or** substance abuse problems, 2) mental health problems, 3) substance abuse problems, and 4) **both** mental health **and** substance abuse problems (co-occurring disorders). Combination of treatment status and health problem type produces thirteen client subgroups (for clients with co-occurring disorders, two types of unmet need were identified: those who received treatment for one, but not the other disorder, and those who did not receive any treatment).

A total of thirteen maps were prepared showing geographic distribution of DSHS clients with mental health or substance abuse problems. (Each client subgroup by problem type and treatment status was mapped). The maps display client density and locations of treatment centers. Density (the number of clients per acre) is used to identify areas of greatest concentration of the clients in Snohomish County. The darker the color on the map, the higher the client density; for consistency, the same density classes are used on all maps.

Additionally, two maps showing distances to the nearest treatment provider were prepared for clients with unmet mental health or substance abuse treatment needs. The distances were determined assuming travel along the street/road network of Snohomish

County. A total of seven distance zones were chosen: up to ¾ of a mile to the nearest treatment provider; between ¾ and 1.5 miles; 1.6 to 5 miles; 5.1 to 10 miles; 10.1 to 20 miles; 20.1 to 50 miles, and more than 50 miles.

These distance zones were used to summarize client data. For each client subgroup and distance zone, a sum of clients residing within the zone was calculated. The results are presented in Tables 1, 2, and 3.

Key findings

The highest concentrations of DSHS clients with mental health or substance abuse problems are located **in the urban areas** of Snohomish County, particularly in the downtown of Everett. Three areas in Everett show concentrations of between 1.5 and 2.7 clients per acre. Several areas along major highways show elevated densities of between 0.5 and 1.5 clients per acre. In general, client density declines with distance from the urban centers.

Maps of clients receiving treatment versus those with unmet needs show a very similar geographic pattern. However, **clients with unmet needs are more numerous** (64 percent of all clients with mental health or substance abuse problems) and they tend to display slightly **higher densities**.

There seems to be **some evidence of geographic barriers** to treatment. There are relatively fewer clients with unmet needs in close proximity to treatment providers, compared to clients receiving treatment. As the distance to treatment providers increases, the share of clients with unmet needs grows relatively to the share of clients receiving treatment.

The ratio of clients with mental health or substance abuse problems to the total population is the highest near the treatment providers (8.9 clients per 100 people). The ratio declines as the

distance to the nearest provider increases, reaching 2.5 clients per 100 people at the distance of 5 to 10 miles. The ratio increases afterwards to 3.9 – 4.0 clients per 100 people. This trend is particularly strong for clients with mental health problems. This may indicate that communities located at significant distances from providers suffer twice: they have a higher share of residents who have mental health or substance abuse problems and these residents need to travel longer distances to access treatment.

Definitions, Data Sources, Methods

Definitions. Clients enrolled in Medicaid or other DSHS-administered low-income medical coverage in FY 2007 are classified as having an indication of mental health problems if the client received treatment, a prescription or a medical procedure for treating mental illness or had a diagnosis of mental illness during FY 2006 or 2007. Clients enrolled in Medicaid or other DSHS-administered Medical coverage in FY 2007 are classified as having a possible alcohol or other drug (AOD) problem if they had received AOD treatment or had a diagnosis, procedure, prescription, or arrest related to substance use, abuse, or dependence during FY 2006 or 2007.

Data sources. The data for this study come from RDA's DSHS Integrated Client Databases (ICDB) that combines information about clients and their services from the Client Services Database (CSDB) to more detailed health risk indicators and client outcomes from RDA's Client Outcomes Database (CODB).[1] Additionally, 2007 population estimates from Washington State Department of Health were used as denominators to calculate rates.[2] The Snohomish County Human Services Department provided addresses of treatment providers for mental health and substance abuse problems.

Methods. Client records were selected from CODB if a mental health treatment need flag or AOD treatment need flag was present. The selected records were then linked to records in CSDB, which contain geographic coordinates (longitude and latitude) of client's best known residential address. (RDA's Geographic Information System (GIS) is used to obtain the coordinates through the process of geocoding clients' addresses). GIS was next used to prepare density maps, to develop road network-based distance zones (service areas) to the nearest treatment provider, and to summarize clients by distance zone.

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[1] Washington State Department of Social and Health Services, Research and Data Analysis, *Integrated Database: Client Services Database and Client Outcomes Database*, June 2009.
[2] Washington State Department of Health, *Washington State Population Estimates for Public Health*, January 2009.

Snohomish County, WA

Washington State Department of Social & Health Services
RDA Research & Data Analysis Division

Table 1. DSHS Clients with Mental Health or Substance Abuse Problems by Distance to the Nearest Treatment Provider, FY 2007

Distance, miles (*)	Clients with Mental Health or Substance Abuse Problems			Clients with Mental Health Problems			Clients with Substance Abuse Problems			Clients with Co-occurring Disorders				
											Receiving treatment			Not receiving *any* treatment
	All	Receiving treatment	Not receiving treatment	All	Receiving treatment	Not receiving treatment	All	Receiving treatment	Not receiving treatment	All	for both	for MH only	for AOD only	
0 - 0.75	5,190	2,141	3,049	3,747	1,993	1,754	1,067	410	657	496	117	217	60	102
0.75 - 1.5	5,619	2,134	3,485	4,412	2,011	2,401	1,350	458	892	710	149	270	123	168
1.5 - 5	10,696	3,797	6,899	9,730	4,111	5,619	3,429	1,207	2,222	1,938	358	708	348	524
5 - 10	3,035	944	2,091	3,210	1,217	1,993	1,326	429	897	812	111	255	150	296
10 - 20	1,460	468	992	1,447	530	917	534	178	356	295	53	91	48	103
20 - 50	192	33	159	180	39	141	54	16	38	34	2	7	10	15
50+	162	53	109	136	49	87	39	17	22	22	6	8	4	4
TOTAL	26,354	9,570	16,784	22,862	9,950	12,912	7,799	2,715	5,084	4,307	796	1,556	743	1,212

Table 2. Percent DSHS Clients with Mental Health or Substance Abuse Problems by Distance to the Nearest Treatment Provider, FY 2007
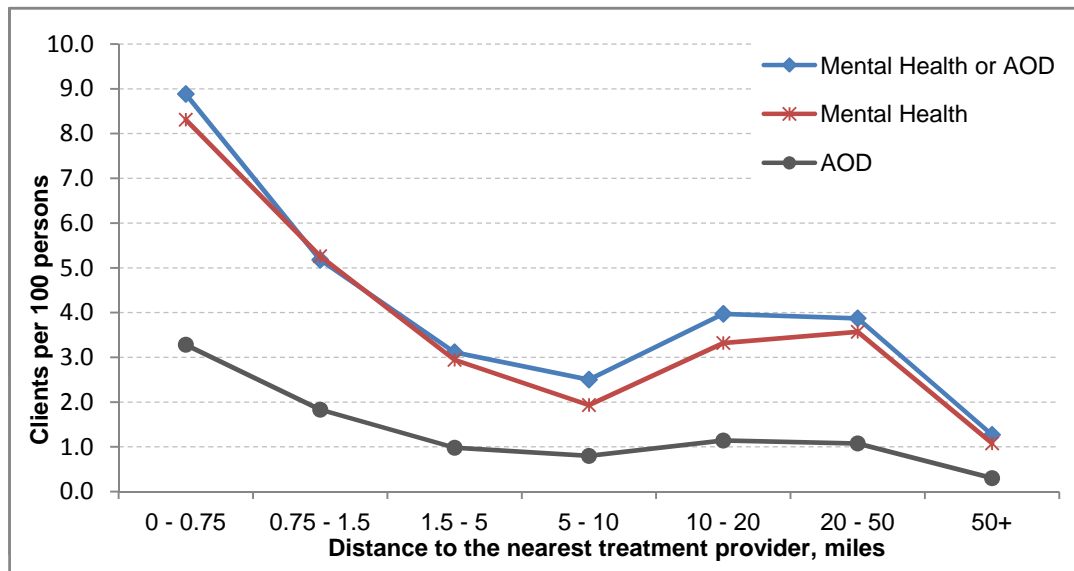
Distance, miles (*)	Clients with Mental Health or Substance Abuse Problems			Clients with Mental Health Problems			Clients with Substance Abuse Problems			Clients with Co-occurring Disorders				
											Receiving treatment			Not receiving *any* treatment
	All	Receiving treatment	Not receiving treatment	All	Receiving treatment	Not receiving treatment	All	Receiving treatment	Not receiving treatment	All	for both	for MH only	for AOD only	
0 - 0.75	19.7	22.4	18.2	16.4	20.0	13.6	13.7	15.1	12.9	11.5	14.7	13.9	8.1	8.4
0.75 - 1.5	21.3	22.3	20.8	19.3	20.2	18.6	17.3	16.9	17.5	16.5	18.7	17.4	16.6	13.9
1.5 - 5	40.6	39.7	41.1	42.6	41.3	43.5	44.0	44.5	43.7	45.0	45.0	45.5	46.8	43.2
5 - 10	11.5	9.9	12.5	14.0	12.2	15.4	17.0	15.8	17.6	18.9	13.9	16.4	20.2	24.4
10 - 20	5.5	4.9	5.9	6.3	5.3	7.1	6.8	6.6	7.0	6.8	6.7	5.8	6.5	8.5
20 - 50	0.7	0.3	0.9	0.8	0.4	1.1	0.7	0.6	0.7	0.8	0.3	0.4	1.3	1.2
50+	0.6	0.6	0.6	0.6	0.5	0.7	0.5	0.6	0.4	0.5	0.8	0.5	0.5	0.3
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

(*) The distance to the nearest treatment provider was calculated assuming travel along the street/road network. Trails and other walking paths not accessible to cars were excluded from the analysis. For *all clients*, the distance to *any* nearest mental health (MH) or substance/alcohol or drug (AOD) abuse treatment provider was determined (24 providers). For *MH clients*, the distance to the nearest *MH* treatment provider was determined (13 providers). For *AOD clients*, the distance to the nearest *AOD* treatment providers was determined (11 providers). For clients with co-occurring disorders (*COD*), the distance to *both MH and AOD* nearest treatment providers was evaluated, and the longer of the two was used in the analysis.

Snohomish County, WA

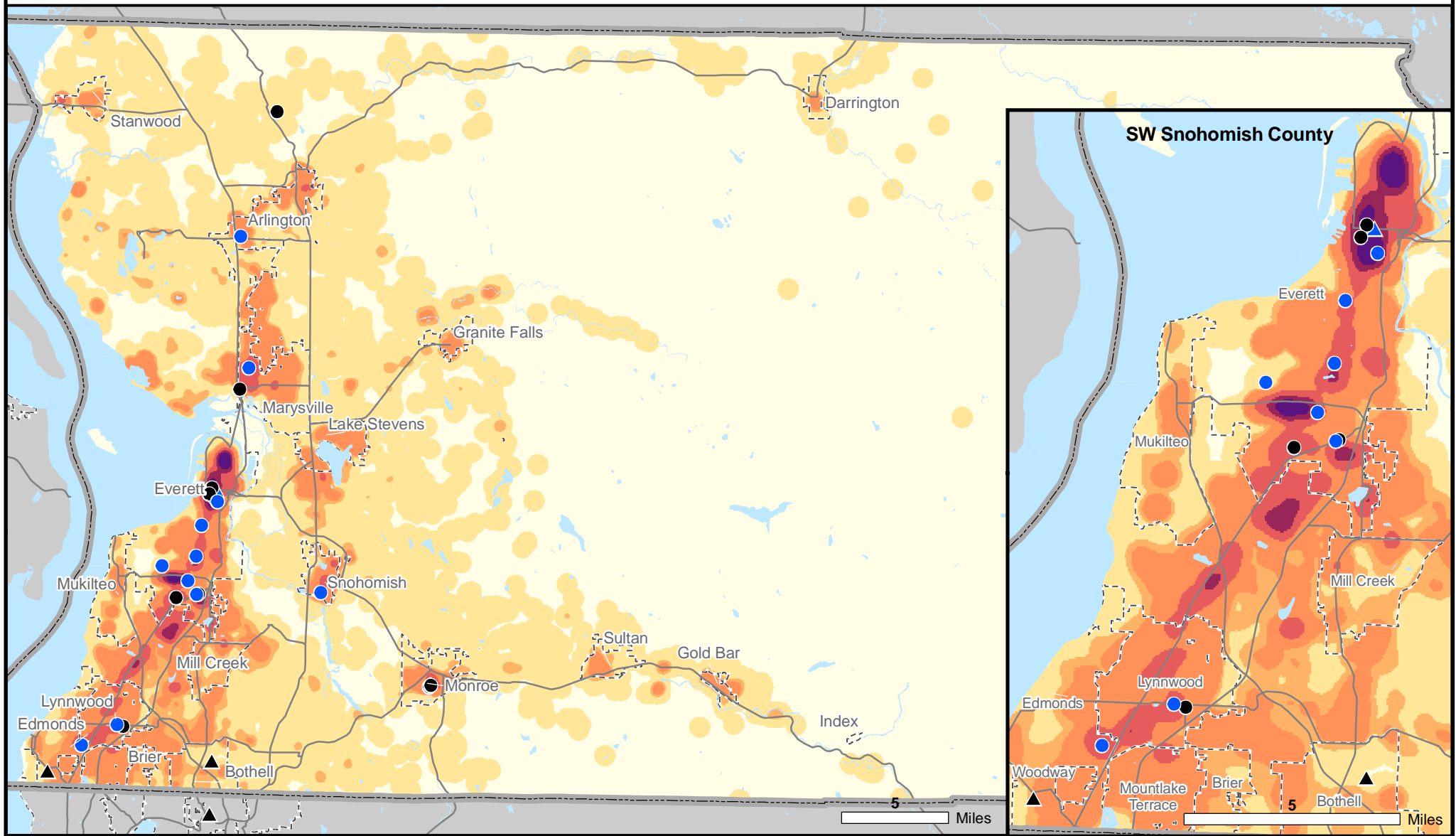**Table 3. Ratio of DSHS Clients with Mental Health or Substance Abuse Problems per 100 Persons by Distance to the Nearest Treatment Provider, FY 2007**

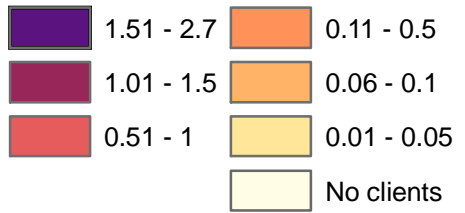| Distance, miles (*)	Clients with Mental Health or Substance Abuse Problems			Clients with Mental Health Problems			Clients with Substance Abuse Problems		
	Clients	Total population	Ratio per 100 people	Clients	Total population	Ratio per 100 people	Clients	Total population	Ratio per 100 people
0 - 0.75	5,190	58,428	8.9	3,747	45,086	8.3	1,067	32,519	3.3
0.75 - 1.5	5,619	108,516	5.2	4,412	83,848	5.3	1,350	73,722	1.8
1.5 - 5	10,696	343,583	3.1	9,730	330,214	2.9	3,429	349,574	1.0
5 - 10	3,035	121,276	2.5	3,210	165,934	1.9	1,326	165,804	0.8
10 - 20	1,460	36,766	4.0	1,447	43,577	3.3	534	46,770	1.1
20 - 50	192	4,959	3.9	180	5,040	3.6	54	5,016	1.1
50+	162	12,772	1.3	136	12,601	1.1	39	12,895	0.3
TOTAL	**26,354**	**686,300**	**3.8**	**22,862**	**686,300**	**3.3**	**7,799**	**686,300**	**1.1**

(*) The distance to the nearest treatment provider was calculated assuming travel along the street/road network. Trails and other walking paths not accessible to cars were excluded from the analysis. For **all clients**, the distance to **any** nearest mental health (MH) or substance/alcohol or drug (AOD) abuse treatment provider was determined (24 providers). For **MH clients**, the distance to the nearest **MH** treatment provider was determined (13 providers). For **AOD clients**, the distance to the nearest **AOD** treatment providers was determined (11 providers).
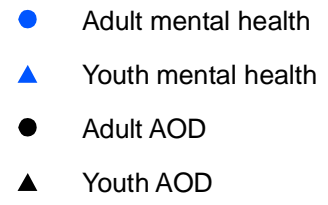
DSHS Clients with Mental Health or Substance Abuse Problems, Snohomish County

SW Snohomish County

Place labels (main map): Stanwood, Darrington, Arlington, Granite Falls, Marysville, Lake Stevens, Everett, Mukilteo, Snohomish, Sultan, Gold Bar, Mill Creek, Monroe, Lynnwood, Edmonds, Brier, Bothell, Index

Place labels (inset): Everett, Mukilteo, Mill Creek, Lynnwood, Edmonds, Woodway, Mountlake Terrace, Brier, Bothell

5 Miles

Density of clients, persons per acre

- 1.51 - 2.7
- 1.01 - 1.5
- 0.51 - 1
- 0.11 - 0.5
- 0.06 - 0.1
- 0.01 - 0.05
- No clients

Service providers

- ● Adult mental health
- ▲ Youth mental health
- ● Adult AOD
- ▲ Youth AOD

Notes: Unduplicated DSHS clients covered by Medicaid and other DSHS medical programs in FY 2007.

A mental health problem was flagged for DSHS clients if a person received treatment for mental illness or had a related diagnosis, procedure or prescription recorded in their medical claims in FY 2006 or 2007.

A substance abuse problem was flagged for DSHS clients if a person received treatment for alcohol or other drug abuse or dependency or had a related diagnosis, procedure, prescription, or arrest recorded during FY 2006 or 2007.

The number of clients per acre is used to identify areas of greatest client density in Snohomish County. Density equals total clients residing on an acre of land and in neighboring acres within a 1/2-mile radius, divided by the total acres in that geographic vicinity. This method represents an average number of clients in a area without revealing the actual addresses of individual clients.
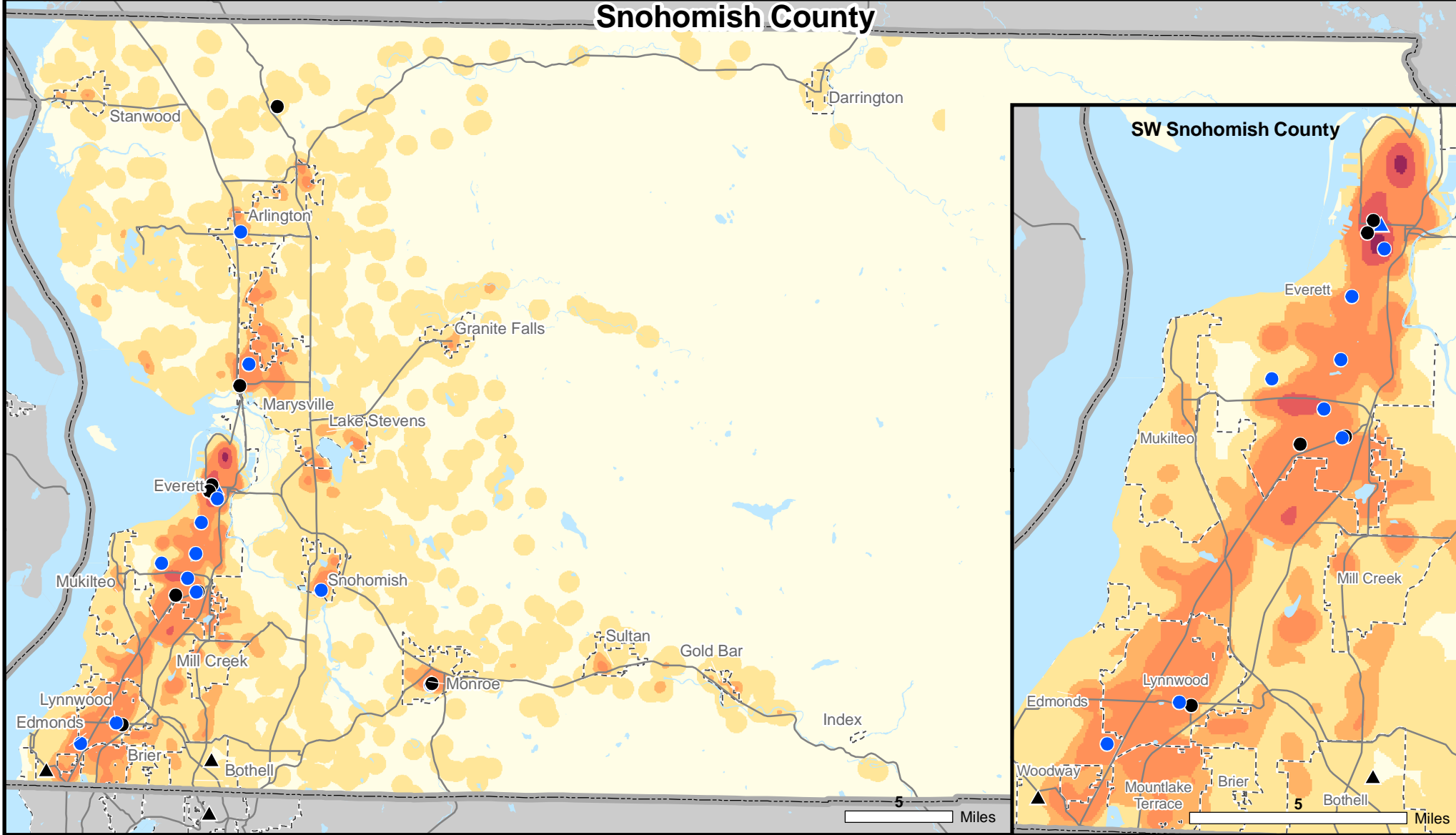
Areas without DSHS clients may have other residents or be entirely unpopulated.

Sources: Research and Data Analysis, Integrated Client Database, May 2009; Snohomish Co. Human Services, May 2009.
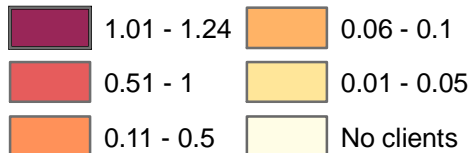
Washington State
Department of Social
& Health Services

RDA Research & Data
Analysis Division

5   *June 15, 2009*

DSHS Clients Receiving Treatment for Mental Health or Substance Abuse Problems, Snohomish County

Darrington

Stanwood

Arlington

Granite Falls

Marysville

Lake Stevens

Everett

Mukilteo

Snohomish

Mill Creek

Sultan

Gold Bar

Lynnwood

Monroe

Edmonds

Index

Brier

Bothell

SW Snohomish County

Everett

Mukilteo

Mill Creek

Lynnwood

Edmonds

Woodway

Mountlake Terrace

Brier

Bothell

5 Miles

5 Miles

Density of clients, persons per acre

1.01 - 1.24	0.06 - 0.1
0.51 - 1	0.01 - 0.05
0.11 - 0.5	No clients

Service providers

● Adult mental health

▲ Youth mental health

● Adult AOD

▲ Youth AOD

Notes: Unduplicated DSHS clients covered by Medicaid and other DSHS medical programs in FY 2007.

A mental health problem was flagged for DSHS clients if a person received treatment for mental illness or had a related diagnosis, procedure or prescription recorded in their medical claims in FY 2006 or 2007.

A substance abuse problem was flagged for DSHS clients if a person received treatment for alcohol or other drug abuse or dependency or had a related diagnosis, procedure, prescription, or arrest recorded during FY 2006 or 2007.
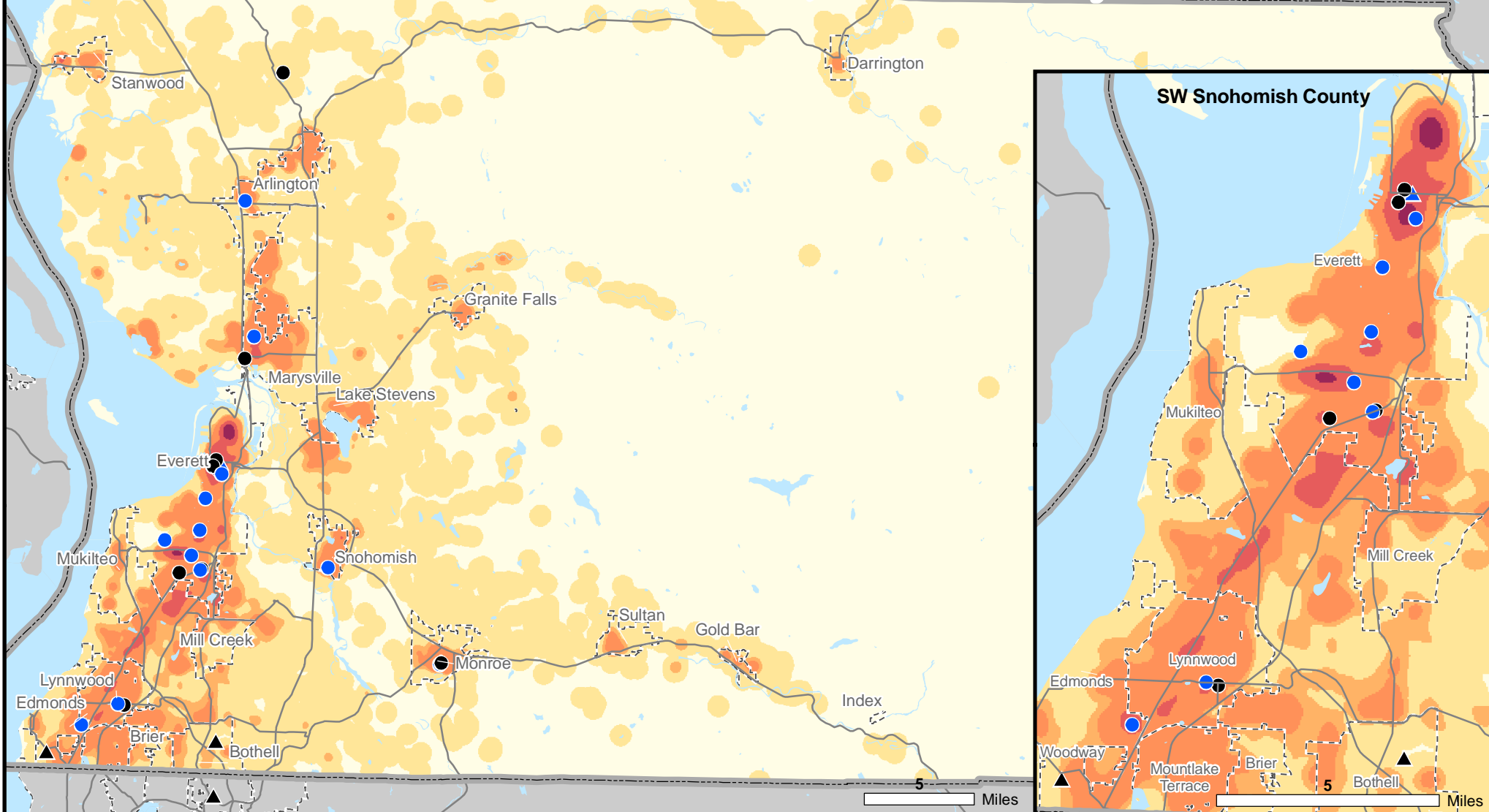
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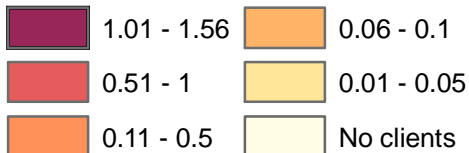Areas without DSHS clients may have other residents or be entirely unpopulated.

Sources: Research and Data Analysis, Integrated Client Database, May 2009; Snohomish Co. Human Services, May 2009.

Washington State Department of Social & Health Services

RDA Research & Data Analysis Division

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DSHS Clients Needing but NOT Receiving Treatment for Mental Health or Substance Abuse Problems, Snohomish County

SW Snohomish County

Density of clients, persons per acre

■ 1.01 - 1.56	■ 0.06 - 0.1
■ 0.51 - 1	■ 0.01 - 0.05
■ 0.11 - 0.5	□ No clients

Service providers

- ● Adult mental health
- ▲ Youth mental health
- ● Adult AOD
- ▲ Youth AOD

Notes: Unduplicated DSHS clients covered by Medicaid and other DSHS medical programs in FY 2007 who needed but did not receive treatment for mental health or substance abuse problems.

A mental health problem was flagged for DSHS clients if a person received treatment for mental illness or had a related diagnosis, procedure or prescription recorded in their medical claims in FY 2006 or 2007.

A substance abuse problem was flagged for DSHS clients if a person received treatment for alcohol or other drug abuse or dependency or had a related diagnosis, procedure, prescription, or arrest recorded during FY 2006 or 2007.
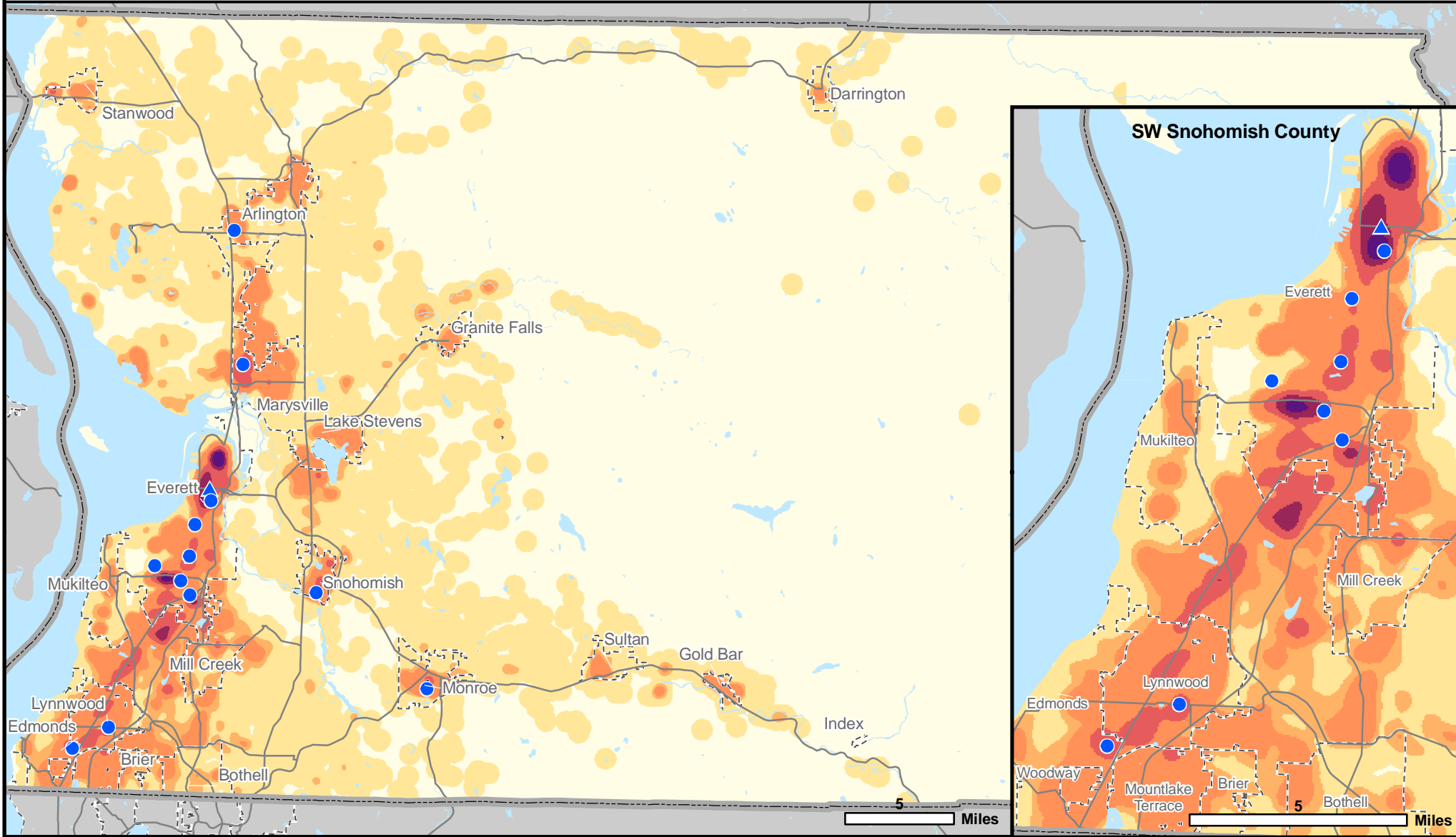
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Areas without DSHS clients may have other residents or be entirely unpopulated.
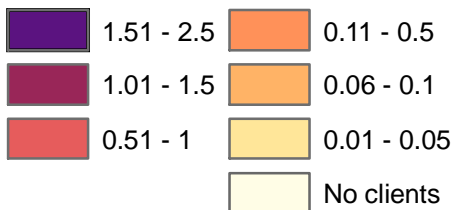
Sources: Research and Data Analysis, Integrated Client Database, May 2009; Snohomish Co. Human Services, May 2009.

Washington State Department of Social & Health Services

RDA Research & Data Analysis Division

7   *June 15, 2009*

DSHS Clients with Mental Health Problems, Snohomish County

SW Snohomish County

Density of clients, persons per acre

- 1.51 - 2.5
- 1.01 - 1.5
- 0.51 - 1
- 0.11 - 0.5
- 0.06 - 0.1
- 0.01 - 0.05
- No clients

Service providers

- ● Adult mental health
- ▲ Youth mental health

Notes: Unduplicated DSHS clients covered by Medicaid and other DSHS medical programs in FY 2007.

A mental health problem was flagged for DSHS clients if a person received treatment for mental illness or had a related diagnosis, procedure or prescription recorded in their medical claims in FY 2006 or 2007.

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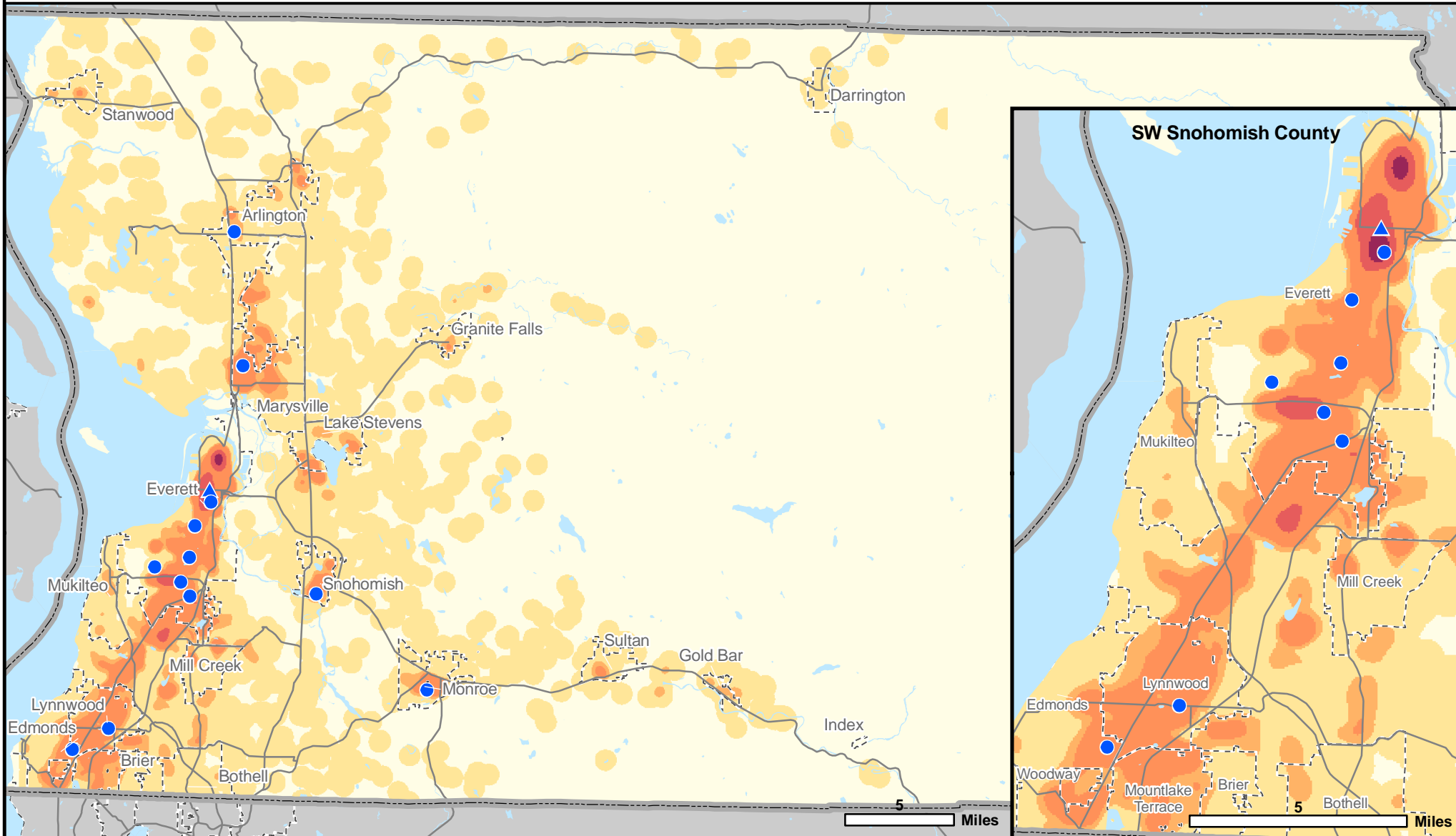
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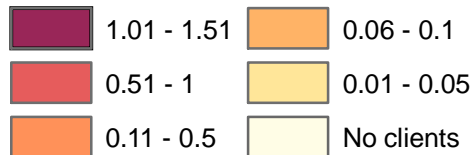Areas without DSHS clients may have other residents or be entirely unpopulated.

Sources: Research and Data Analysis, Integrated Client Database, May 2009; Snohomish Co. Human Services, May 2009.

DSHS Clients Receiving Mental Health Treatment, Snohomish County

SW Snohomish County

Density of clients, persons per acre

- 1.01 - 1.51
- 0.51 - 1
- 0.11 - 0.5
- 0.06 - 0.1
- 0.01 - 0.05
- No clients

Service providers

- ● Adult mental health
- ▲ Youth mental health

Notes: Unduplicated DSHS clients covered by Medicaid and other DSHS medical programs in FY 2007.

A mental health problem was flagged for DSHS clients if a person received treatment for mental illness or had a related diagnosis, procedure or prescription recorded in their medical claims in FY 2006 or 2007.
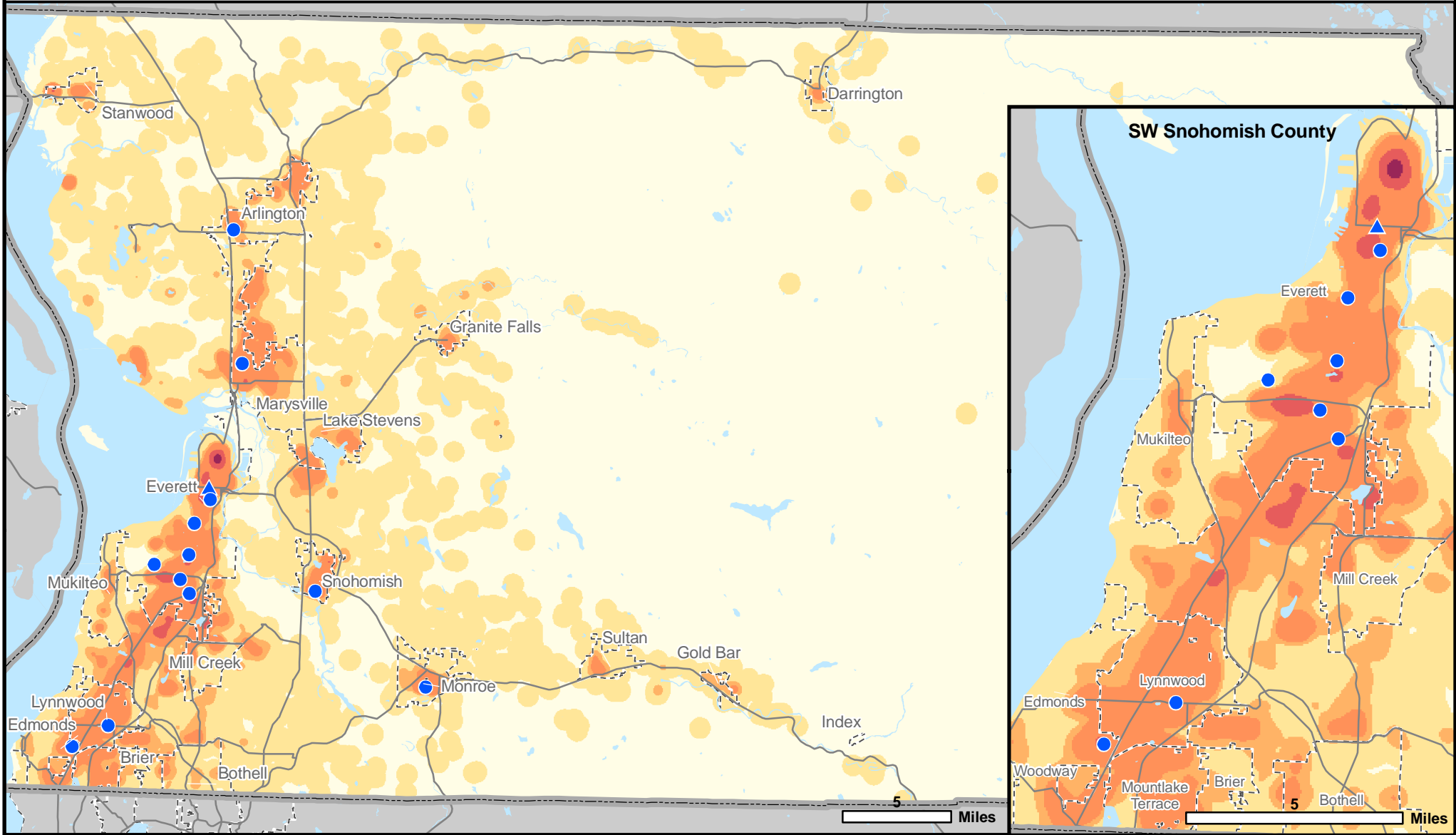
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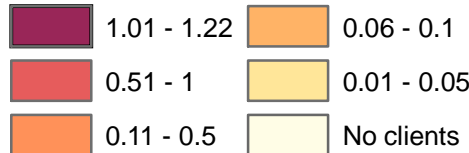
Areas without DSHS clients may have other residents or be entirely unpopulated.

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Washington State Department of Social & Health Services

RDA Research & Data Analysis Division

9   *June 15, 2009*

DSHS Clients Needing but NOT Receiving Mental Health Treatment, Snohomish County

Stanwood

Darrington

Arlington

Granite Falls

Marysville

Lake Stevens

Everett

Mukilteo

Snohomish

Mill Creek

Sultan

Gold Bar

Lynnwood

Edmonds

Monroe

Brier

Index

Bothell

SW Snohomish County

Everett

Mukilteo

Mill Creek

Lynnwood

Edmonds

Woodway

Mountlake Terrace

Brier

Bothell

5 Miles

5 Miles

Density of clients, persons per acre

■ 1.01 - 1.22	■ 0.06 - 0.1	**Service providers**
■ 0.51 - 1	■ 0.01 - 0.05	● Adult mental health
■ 0.11 - 0.5	☐ No clients	▲ Youth mental health

Notes: Unduplicated DSHS clients covered by Medicaid and other DSHS medical programs in FY 2007.

A mental health problem was flagged for DSHS clients if a person received treatment for mental illness or had a related diagnosis, procedure or prescription recorded in their medical claims in FY 2006 or 2007.
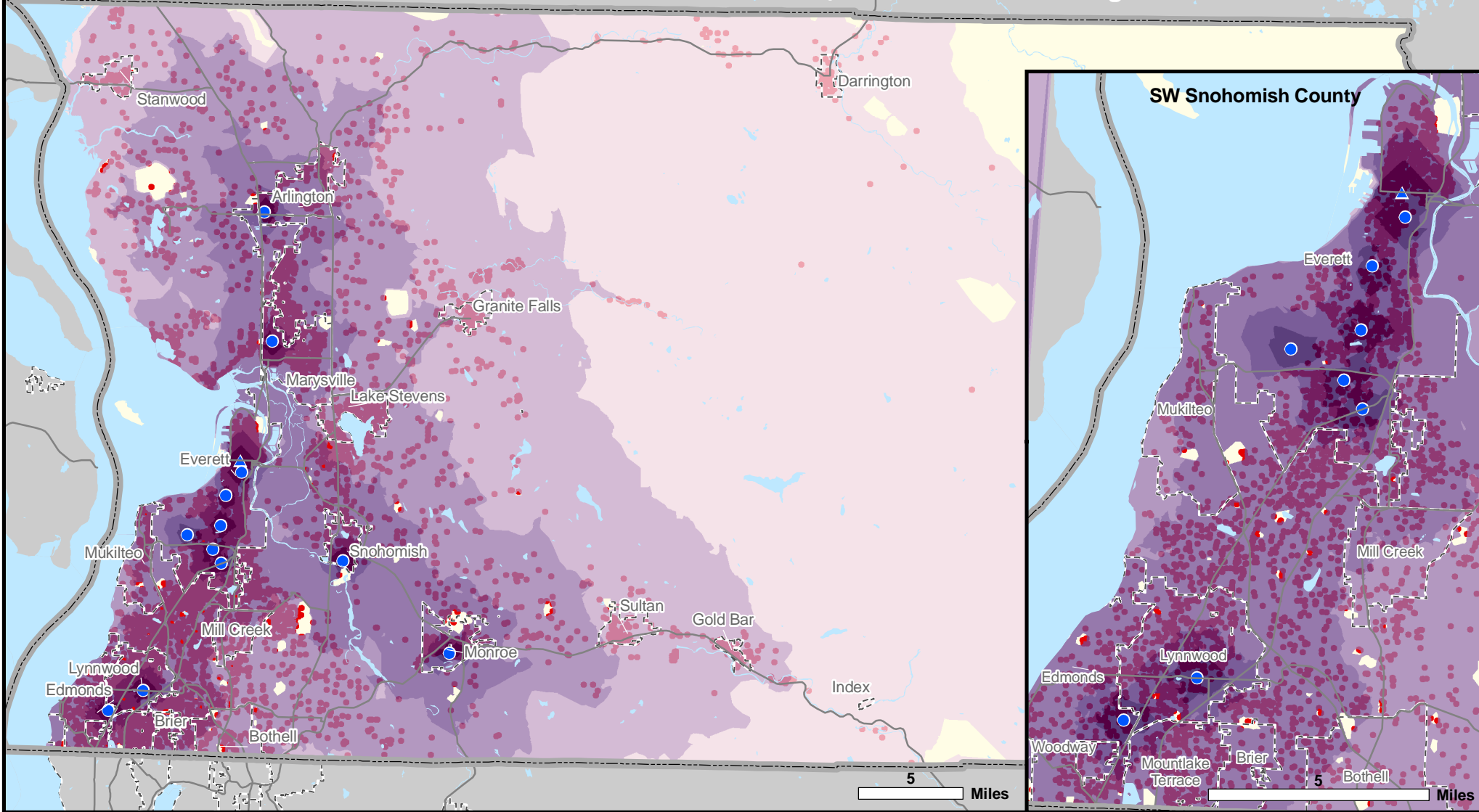
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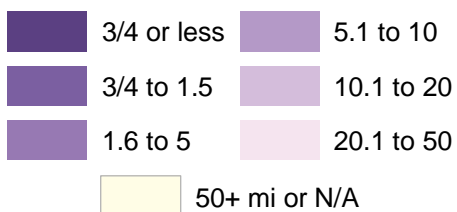
Areas without DSHS clients may have other residents or be entirely unpopulated.

Sources: Research and Data Analysis, Integrated Client Database, May 2009; Snohomish Co. Human Services, May 2009.

Washington State Department of Social & Health Services

RDA Research & Data Analysis Division

10   *June 15, 2009*

Travel Distance to the Nearest Mental Health Treatment Provider for DSHS Clients
with Unmet Mental Health Needs, Snohomish County

SW Snohomish County

5 Miles

Distance to the nearest treatment provider, mi

- 3/4 or less
- 3/4 to 1.5
- 1.6 to 5
- 5.1 to 10
- 10.1 to 20
- 20.1 to 50
- 50+ mi or N/A

Treatment providers

- ● Adult mental health
- ▲ Youth mental health
- • 1 dot = 1 client

Notes: Unduplicated DSHS clients covered by Medicaid and other DSHS medical programs in FY 2007.

A mental health problem was flagged for DSHS clients if a person received treatment for mental illness or had a related diagnosis, procedure or prescription recorded in their medical claims in FY 2006 or 2007.

A substance abuse problem was flagged for DSHS clients if a person received treatment for alcohol or other drug abuse or dependency or had a related diagnosis, procedure, prescription, or arrest recorded during FY 2006 or 2007.
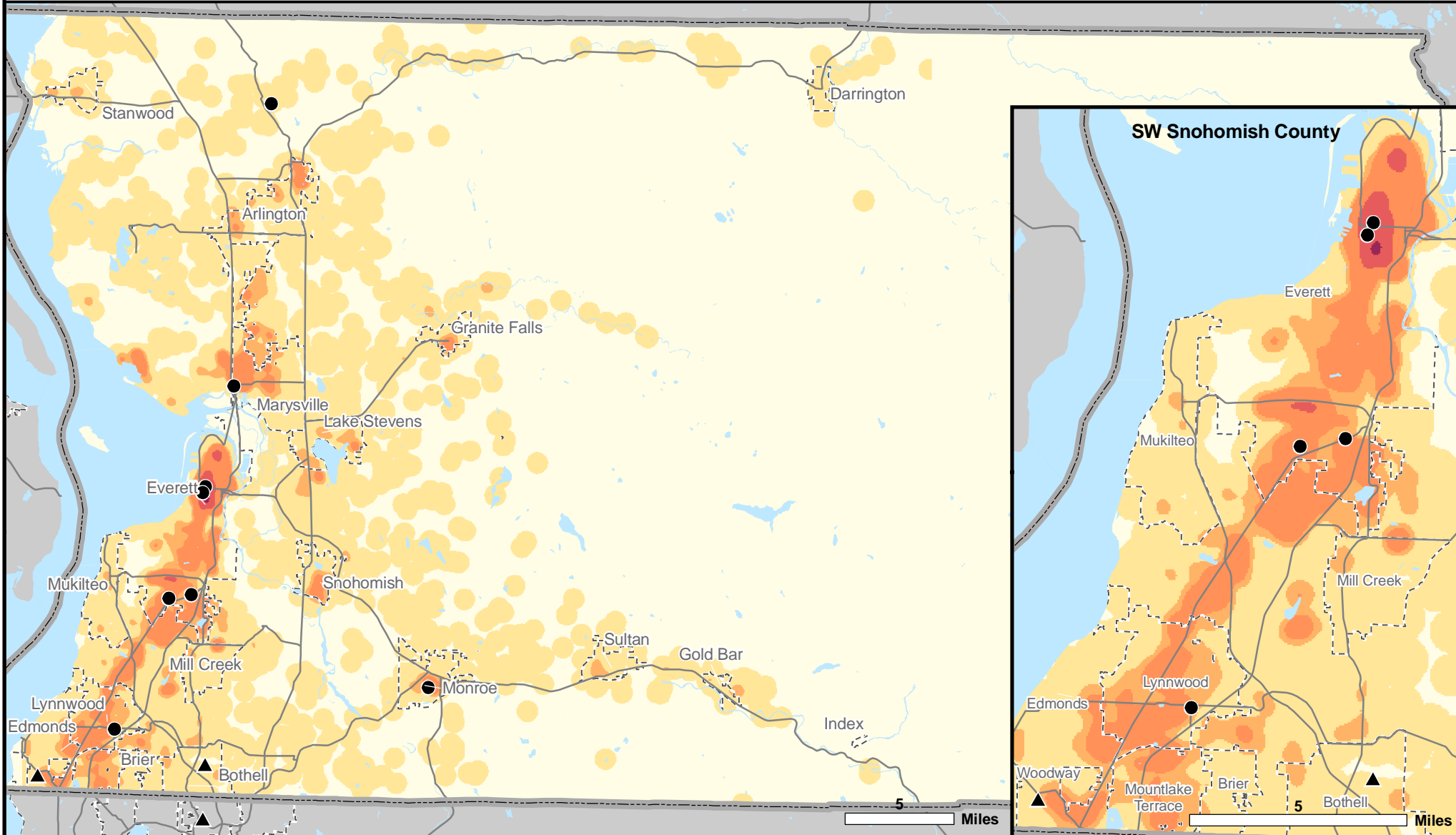
The distance to the nearest treatment provider was calculated assuming travel along the street/road network. Trails and other walking paths not accessible to cars were excluded from the analysis. For clients with mental health (MH) problems, the distance to the nearest MH treatment provider was determined.

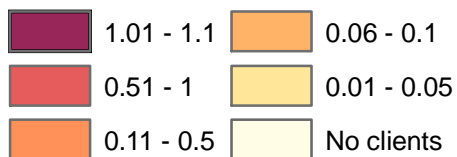Areas without DSHS clients may have other residents or be entirely unpopulated.

Sources: Research and Data Analysis, Integrated Client Database, May 2009; Snohomish Co. Human Services, May 2009; US. Census Bureau, TIGER 2008 (1st Edition).

Washington State
Department of Social & Health Services

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DSHS Clients with Substance Abuse Problems, Snohomish County

SW Snohomish County

Density of clients, persons per acre

- 1.01 - 1.1
- 0.51 - 1
- 0.11 - 0.5
- 0.06 - 0.1
- 0.01 - 0.05
- No clients

Service providers

- ● Adult AOD
- ▲ Youth AOD

Notes: Unduplicated DSHS clients covered by Medicaid and other DSHS medical programs in FY 2007.

A mental health problem was flagged for DSHS clients if a person received treatment for mental illness or had a related diagnosis, procedure or prescription recorded in their medical claims in FY 2006 or 2007.
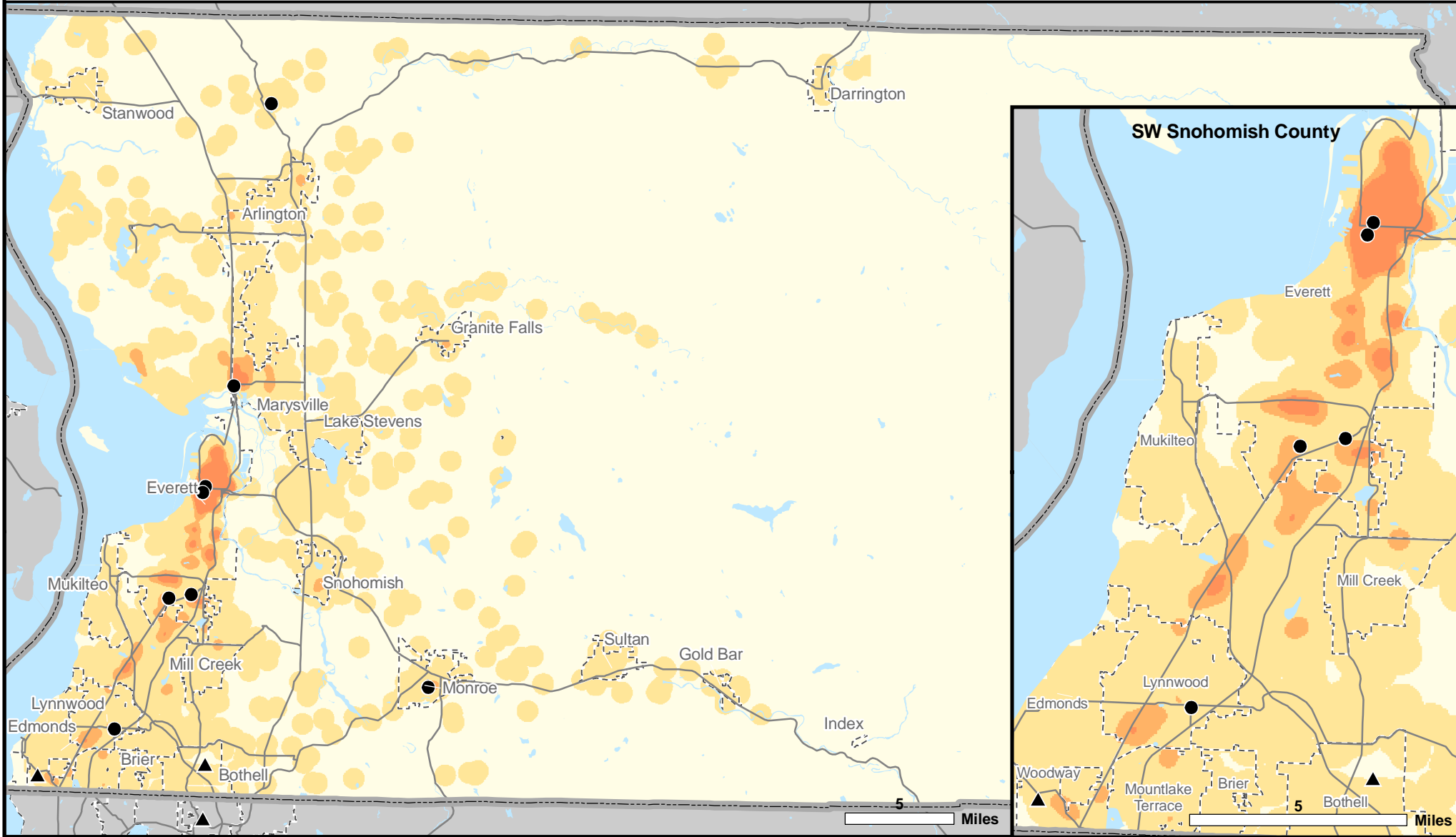
A substance abuse problem was flagged for DSHS clients if a person received treatment for alcohol or other drug abuse or dependency or had a related diagnosis, procedure, prescription, or arrest recorded during FY 2006 or 2007.

The number of clients per acre is used to identify areas of greatest client density in Snohomish County. Density equals total clients residing on an acre of land and in neighboring acres within a 1/2-mile radius, divided by the total acres in that geographic vicinity. This method represents an average number of clients in a area without revealing the actual addresses of individual clients.
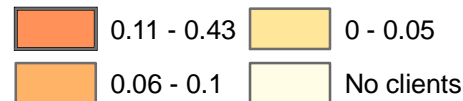
Areas without DSHS clients may have other residents or be entirely unpopulated.

Sources: Research and Data Analysis, Integrated Client Database, May 2009; Snohomish Co. Human Services, May 2009.

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DSHS Clients Receiving Treatment for Substance Abuse Problems, Snohomish County

Stanwood

Darrington

SW Snohomish County

Arlington

Everett

Granite Falls

Marysville

Lake Stevens

Mukilteo

Everett

Snohomish

Mukilteo

Mill Creek

Mill Creek

Sultan

Lynnwood

Gold Bar

Lynnwood

Edmonds

Monroe

Edmonds

Brier

Index

Bothell

Woodway

Mountlake Terrace

Brier

Bothell

5 Miles

5 Miles

Density of clients, persons per acre

0.11 - 0.43	0 - 0.05
0.06 - 0.1	No clients

Service providers

● Adult AOD

▲ Youth AOD

Notes: Unduplicated DSHS clients covered by Medicaid and other DSHS medical programs in FY 2007.

A mental health problem was flagged for DSHS clients if a person received treatment for mental illness or had a related diagnosis, procedure or prescription recorded in their medical claims in FY 2006 or 2007.

A substance abuse problem was flagged for DSHS clients if a person received treatment for alcohol or other drug abuse or dependency or had a related diagnosis, procedure, prescription, or arrest recorded during FY 2006 or 2007.

The number of clients per acre is used to identify areas of greatest client density in Snohomish County. Density equals total clients residing on an acre of land and in neighboring acres within a 1/2-mile radius, divided by the total acres in that geographic vicinity. This method represents an average number of clients in a area without revealing the actual addresses of individual clients.
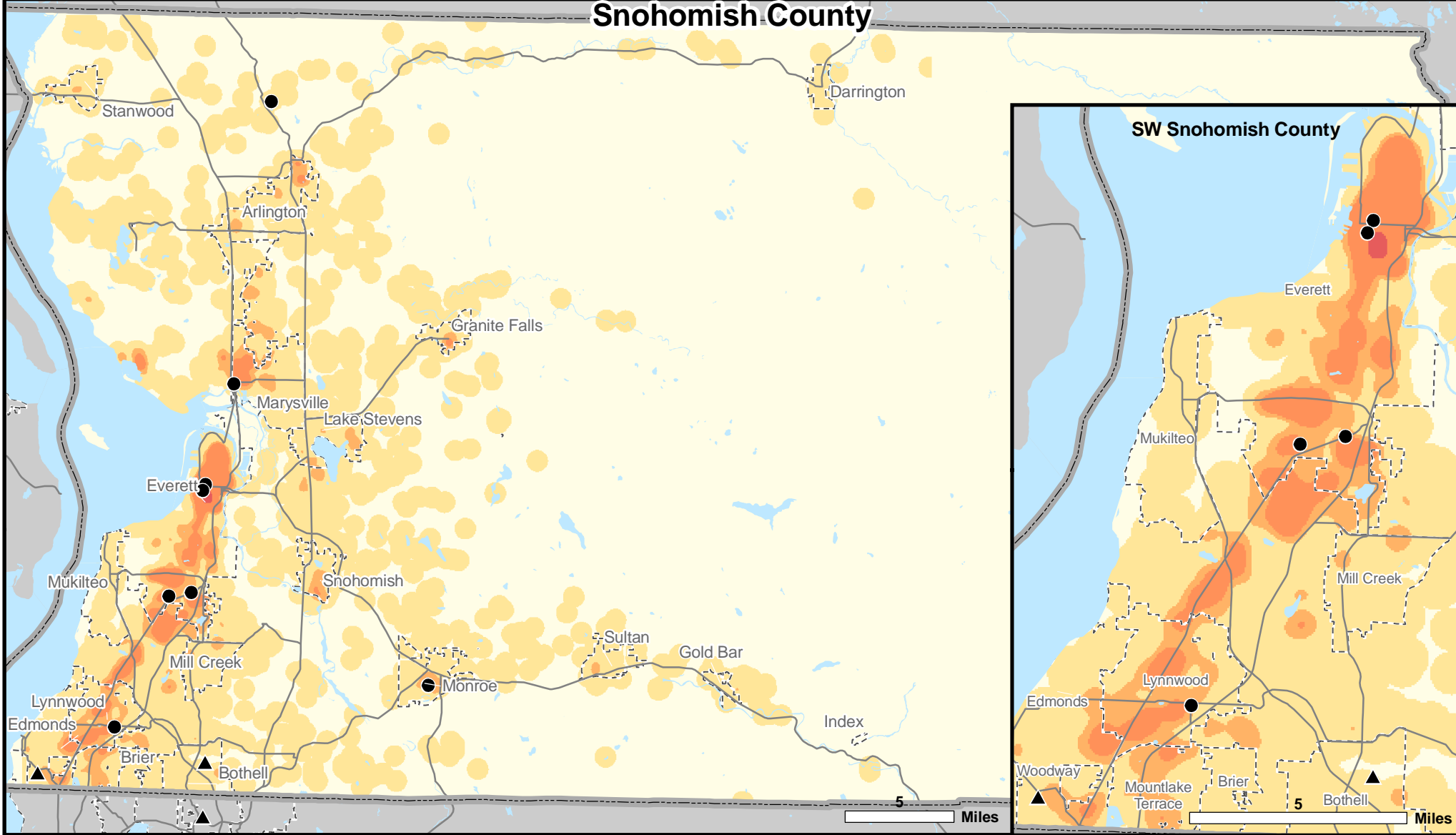
Areas without DSHS clients may have other residents or be entirely unpopulated.

Sources: Research and Data Analysis, Integrated Client Database, May 2009; Snohomish Co. Human Services, May 2009.
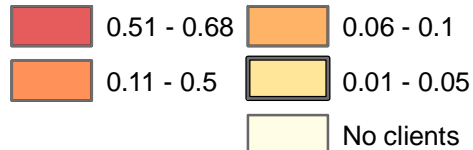
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& Health Services

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Analysis Division

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DSHS Clients Needing but NOT Receiving Treatment for Substance Abuse Problems, Snohomish County

SW Snohomish County

Density of clients, persons per acre

- 0.51 - 0.68
- 0.11 - 0.5
- 0.06 - 0.1
- 0.01 - 0.05
- No clients

Service providers

- ● Adult AOD
- ▲ Youth AOD

Notes: Unduplicated DSHS clients covered by Medicaid and other DSHS medical programs in FY 2007.

A mental health problem was flagged for DSHS clients if a person received treatment for mental illness or had a related diagnosis, procedure or prescription recorded in their medical claims in FY 2006 or 2007.

A substance abuse problem was flagged for DSHS clients if a person received treatment for alcohol or other drug abuse or dependency or had a related diagnosis, procedure, prescription, or arrest recorded during FY 2006 or 2007.
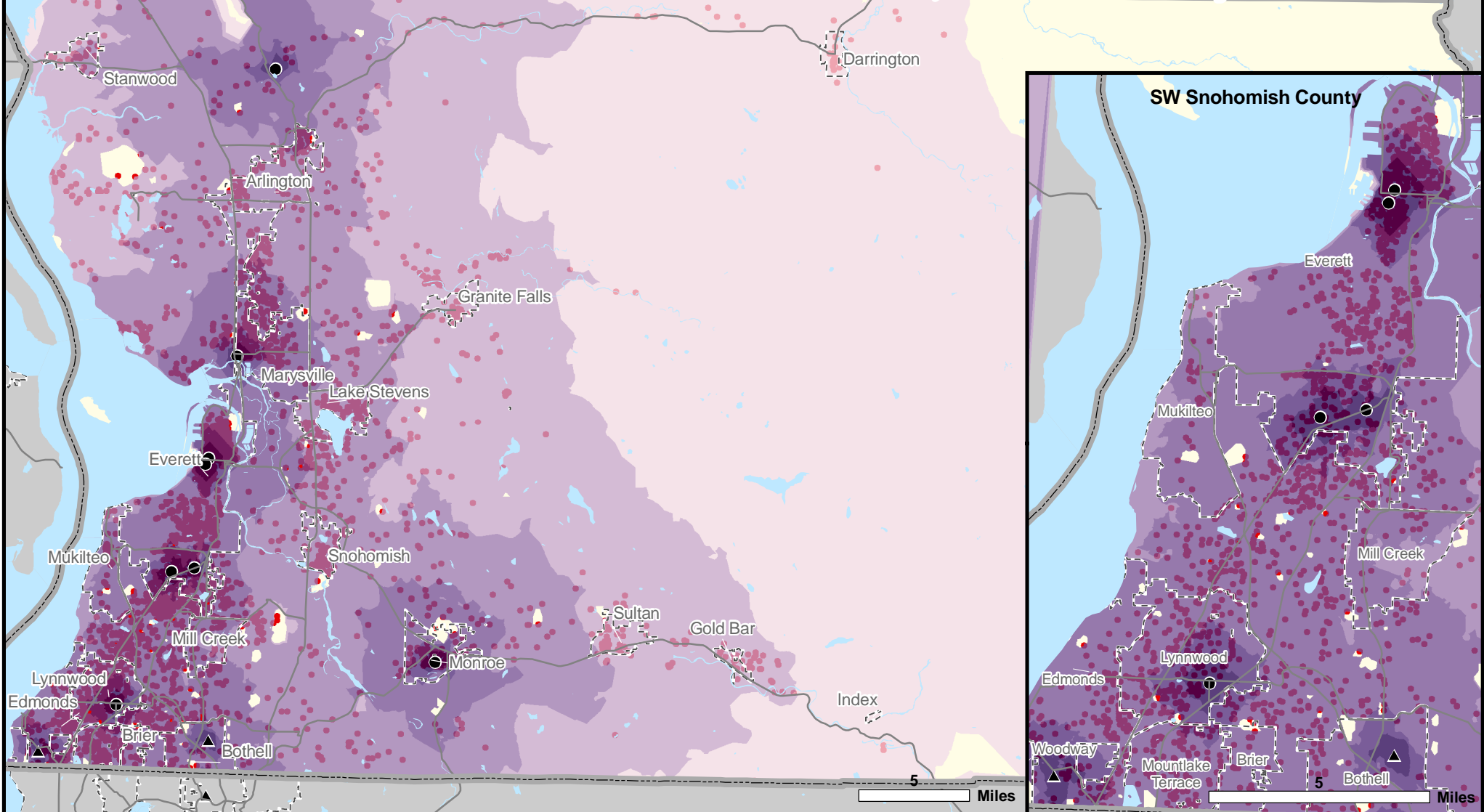
The number of clients per acre is used to identify areas of greatest client density in Snohomish County. Density equals total clients residing on an acre of land and in neighboring acres within a 1/2-mile radius, divided by the total acres in that geographic vicinity. This method represents an average number of clients in a area without revealing the actual addresses of individual clients.

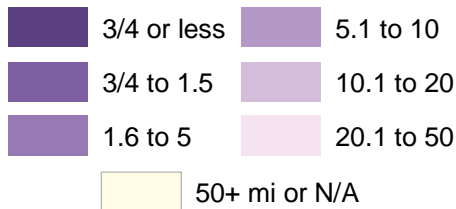Areas without DSHS clients may have other residents or be entirely unpopulated.

Sources: Research and Data Analysis, Integrated Client Database, May 2009; Snohomish Co. Human Services, May 2009.

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Travel Distance to the Nearest Substance Abuse Treatment Provider for DSHS Clients
with Unmet Substance Abuse Treatment Needs, Snohomish County

Stanwood

Darrington

SW Snohomish County

Arlington

Everett

Granite Falls

Mukilteo

Marysville

Lake Stevens

Everett

Mill Creek

Mukilteo

Snohomish

Sultan

Gold Bar

Lynnwood

Mill Creek

Lynnwood
Edmonds

Monroe

Edmonds

Brier

Index

Woodway

Bothell

Mountlake
Terrace

Brier

Bothell

5 Miles

5 Miles

Distance to the nearest treatment provider, mi

▓ 3/4 or less	▓ 5.1 to 10
▓ 3/4 to 1.5	▓ 10.1 to 20
▓ 1.6 to 5	▓ 20.1 to 50
▓ 50+ mi or N/A	

Treatment providers

● Adult AOD

▲ Youth AOD

• 1 dot = 1 client

Notes: Unduplicated DSHS clients covered by Medicaid and other DSHS medical programs in FY 2007.

A mental health problem was flagged for DSHS clients if a person received treatment for mental illness or had a related diagnosis, procedure or prescription recorded in their medical claims in FY 2006 or 2007.
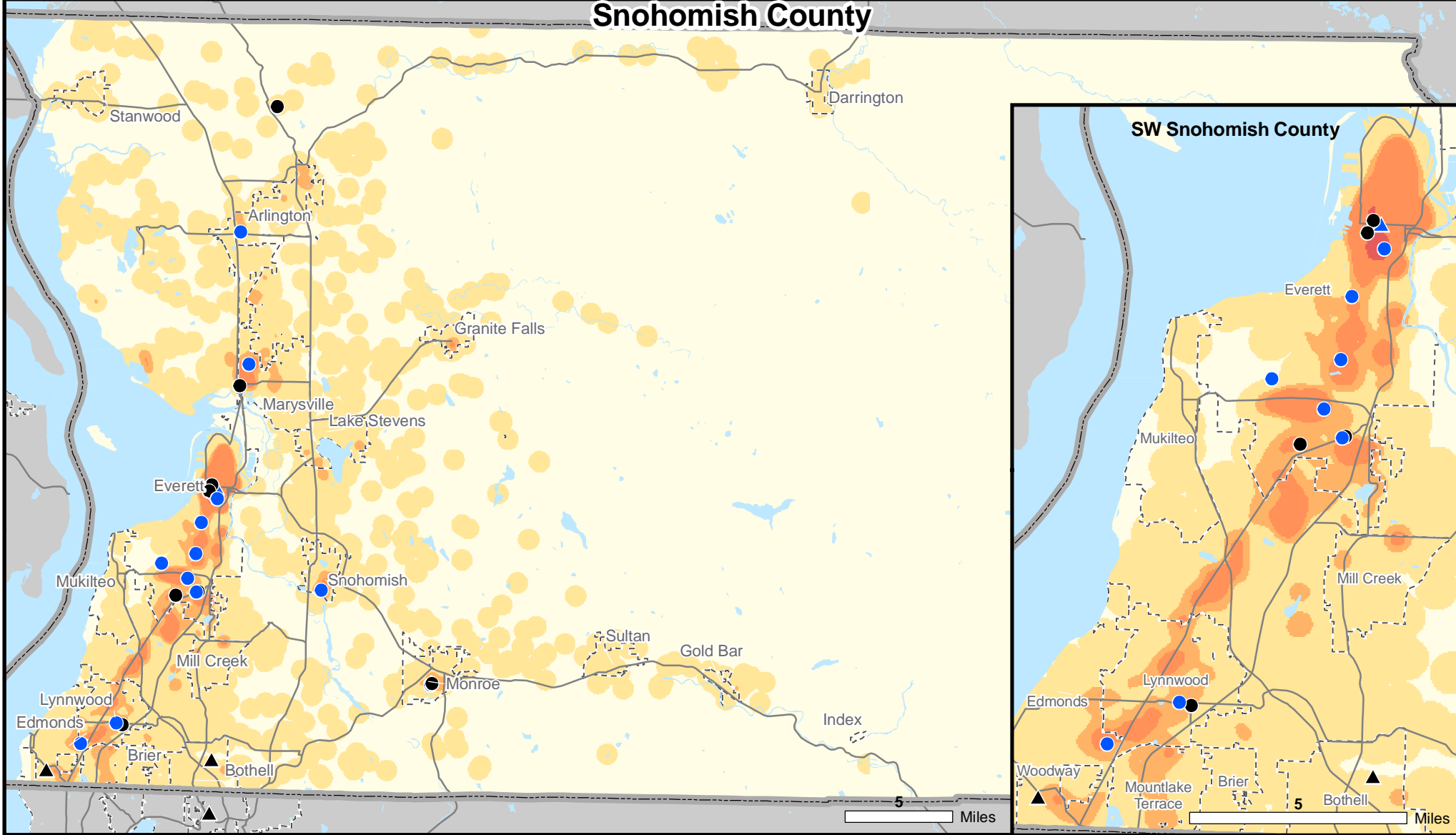
A substance abuse problem was flagged for DSHS clients if a person received treatment for alcohol or other drug abuse or dependency or had a related diagnosis, procedure, prescription, or arrest recorded during FY 2006 or 2007.

The distance to the nearest treatment provider was calculated assuming travel along the street/road network. Trails and other walking paths not accessible to cars were excluded from the analysis. For clients with substance abuse problems (alcohol or other drugs/AOD), the distance to the nearest AOD treatment provider was determined.
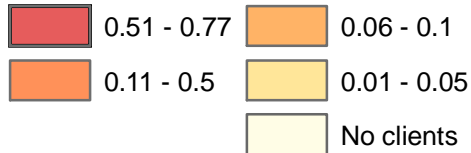
Areas without DSHS clients may have other residents or be entirely unpopulated.

Sources: Research and Data Analysis, Integrated Client Database, May 2009; Snohomish Co. Human Services, May 2009; US. Census Bureau, TIGER 2008 (1st Edition).

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DSHS Clients with Co-occurring Mental Health and Substance Abuse Problems, Snohomish County

SW Snohomish County

Density of clients, persons per acre

- 0.51 - 0.77
- 0.11 - 0.5
- 0.06 - 0.1
- 0.01 - 0.05
- No clients

Service providers

- ● Adult mental health
- ▲ Youth mental health
- ● Adult AOD
- ▲ Youth AOD

Notes: Unduplicated DSHS clients covered by Medicaid and other DSHS medical programs in FY 2007.

A mental health problem was flagged for DSHS clients if a person received treatment for mental illness or had a related diagnosis, procedure or prescription recorded in their medical claims in FY 2006 or 2007.

A substance abuse problem was flagged for DSHS clients if a person received treatment for alcohol or other drug abuse or dependency or had a related diagnosis, procedure, prescription, or arrest recorded during FY 2006 or 2007.
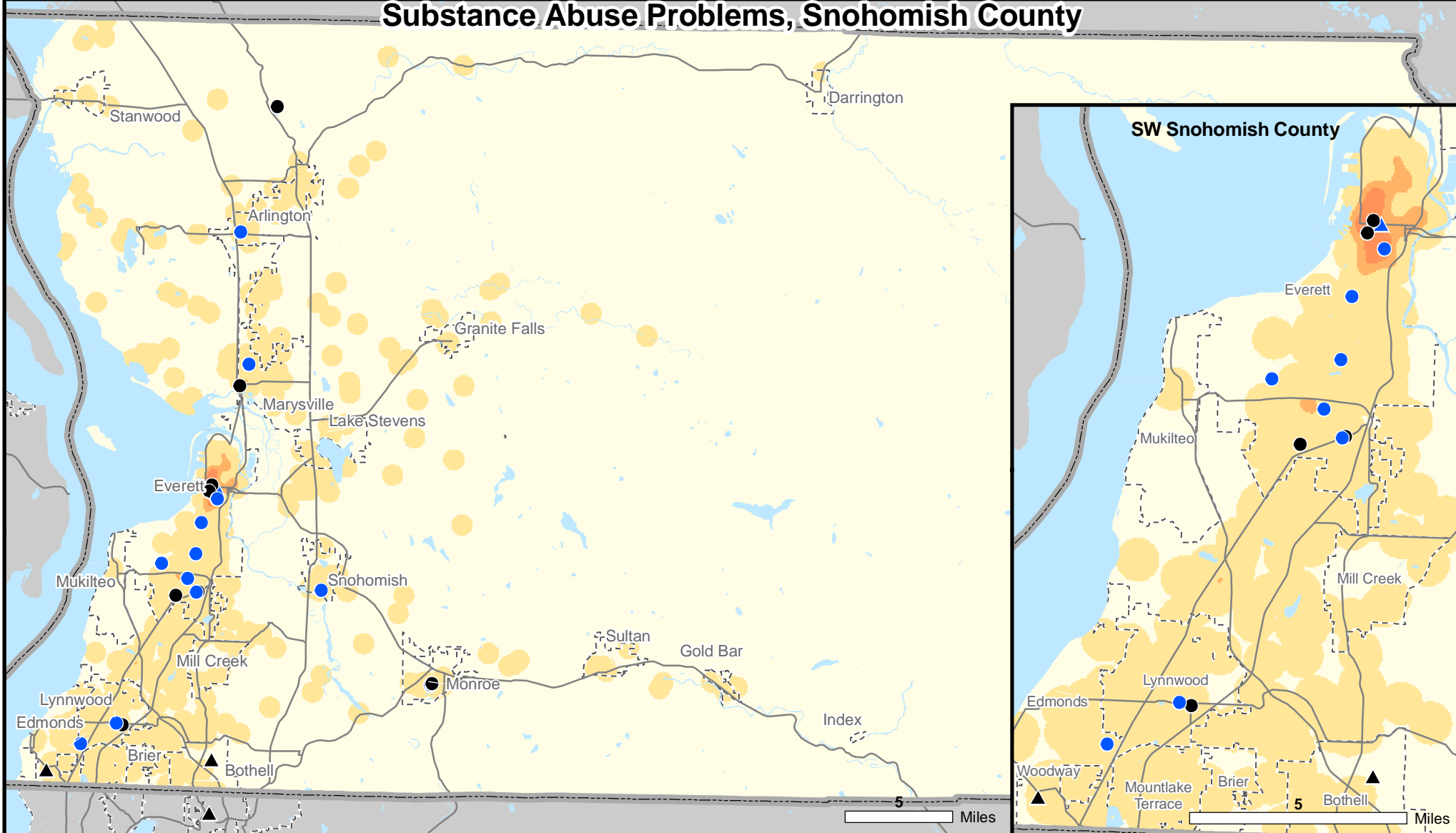
The number of clients per acre is used to identify areas of greatest client density in Snohomish County. Density equals total clients residing on an acre of land and in neighboring acres within a 1/2-mile radius, divided by the total acres in that geographic vicinity. This method represents an average number of clients in a area without revealing the actual addresses of individual clients.

Areas without DSHS clients may have other residents or be entirely unpopulated.
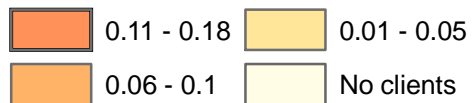
Sources: Research and Data Analysis, Integrated Client Database, May 2009; Snohomish Co. Human Services, May 2009.

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DSHS Clients Receiving Treatment for Co-occurring Mental Health and Substance Abuse Problems, Snohomish County

SW Snohomish County

5 Miles

5 Miles

Density of clients, persons per acre

- 0.11 - 0.18
- 0.06 - 0.1
- 0.01 - 0.05
- No clients

Service providers

- 🔵 Adult mental health
- 🔺 Youth mental health
- ⚫ Adult AOD
- ▲ Youth AOD

Notes: Unduplicated DSHS clients covered by Medicaid and other DSHS medical programs in FY 2007.

A mental health problem was flagged for DSHS clients if a person received treatment for mental illness or had a related diagnosis, procedure or prescription recorded in their medical claims in FY 2006 or 2007.

A substance abuse problem was flagged for DSHS clients if a person received treatment for alcohol or other drug abuse or dependency or had a related diagnosis, procedure, prescription, or arrest recorded during FY 2006 or 2007.

The number of clients per acre is used to identify areas of greatest client density in Snohomish County. Density equals total clients residing on an acre of land and in neighboring acres within a 1/2-mile radius, divided by the total acres in that geographic vicinity. This method represents an average number of clients in a area without revealing the actual addresses of individual clients.

Areas without DSHS clients may have other residents or be entirely unpopulated.

Sources: Research and Data Analysis, Integrated Client Database, May 2009; Snohomish Co. Human Services, May 2009.

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DSHS Clients NOT Receiving AdequateTreatment for Co-occurring Mental Health and Substance Abuse Problems, Snohomish County
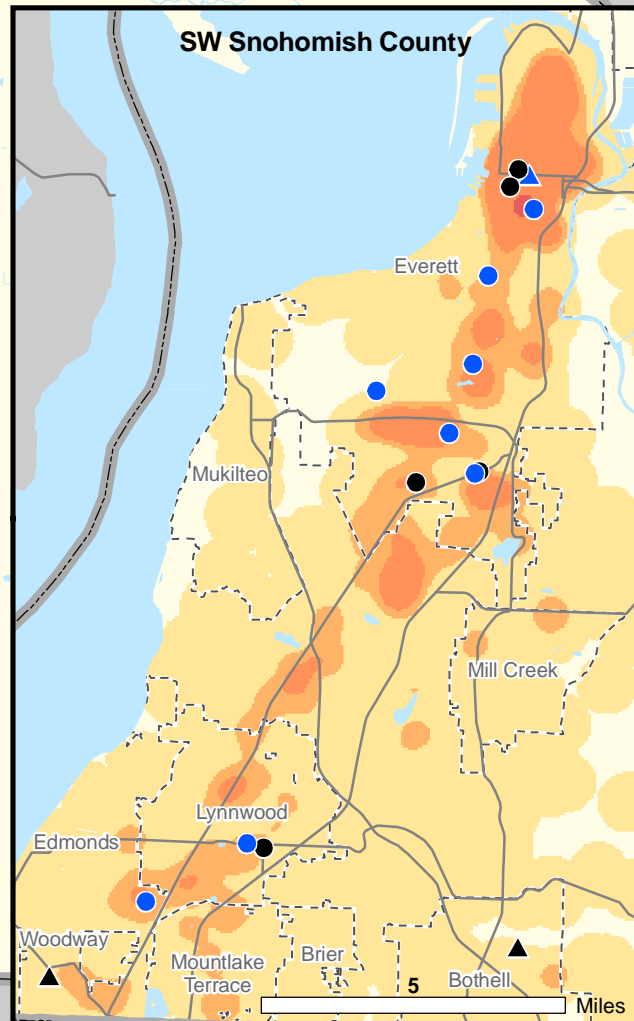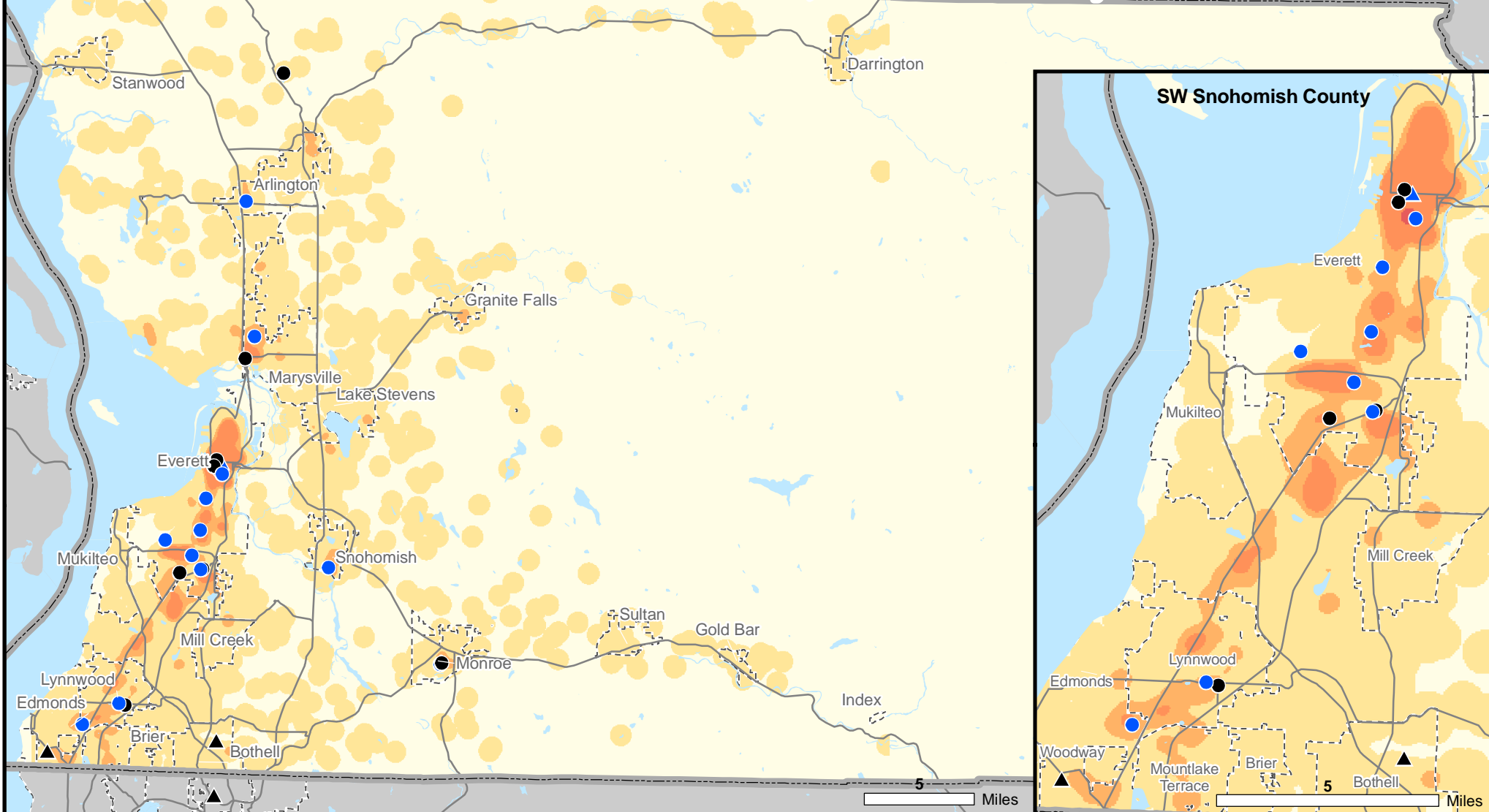
SW Snohomish County

Density of clients, persons per acre

- 0.51 - 0.59
- 0.11 - 0.5
- 0.06 - 0.1
- 0.01 - 0.05
- No clients
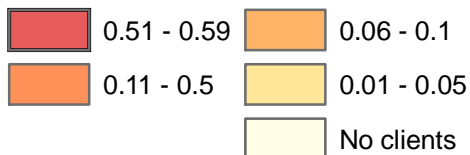
Service providers

- ● Adult mental health
- ▲ Youth mental health
- ● Adult AOD
- ▲ Youth AOD

Notes: Unduplicated DSHS clients covered by Medicaid and other DSHS medical programs in FY 2007 who needed but did not receive treatment for one or both co-occuring disorders.

A mental health problem was flagged for DSHS clients if a person received treatment for mental illness or had a related diagnosis, procedure or prescription recorded in their medical claims in FY 2006 or 2007.

A substance abuse problem was flagged for DSHS clients if a person received treatment for alcohol or other drug abuse or dependency or had a related diagnosis, procedure, prescription, or arrest recorded during FY 2006 or 2007.
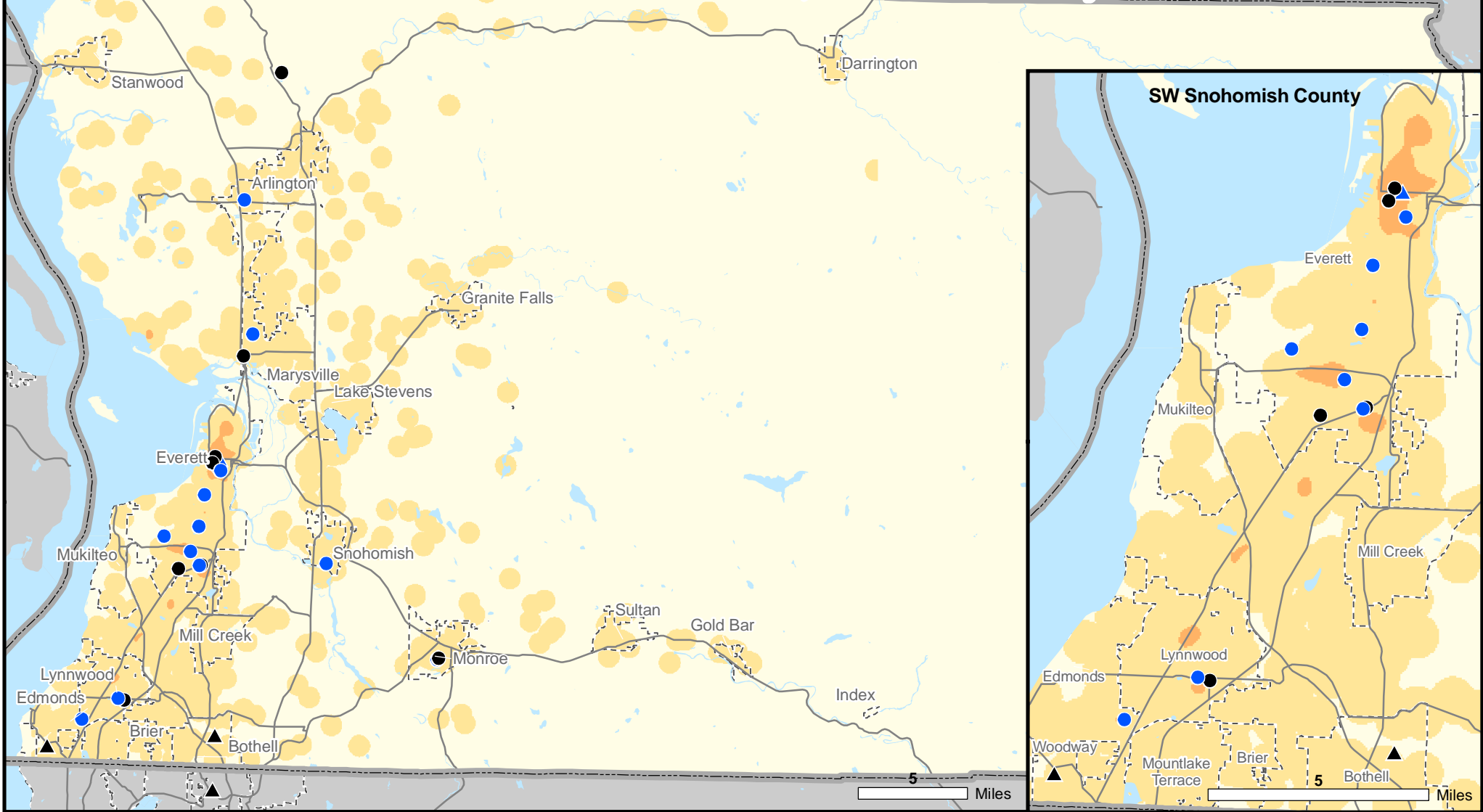
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Areas without DSHS clients may have other residents or be entirely unpopulated.

Sources: Research and Data Analysis, Integrated Client Database, May 2009; Snohomish Co. Human Services, May 2009.

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DSHS Clients NOT Receiving ANY Treatment for Co-occurring Mental Health and Substance Abuse Problems, Snohomish County

Stanwood

Darrington

SW Snohomish County

Arlington

Everett

Granite Falls

Marysville

Lake Stevens

Mukilteo

Everett

Mill Creek

Mukilteo

Snohomish

Mill Creek

Sultan

Gold Bar

Lynnwood

Lynnwood

Edmonds

Brier

Bothell

Edmonds

Monroe

Index

Woodway

Mountlake Terrace

Brier

Bothell

5 Miles

5 Miles

Density of clients, persons per acre

🟧	0.06 - 0.1
🟨	0.01 - 0.05
⬜	No clients

Service providers

🔵 Adult mental health

🔺 Youth mental health

⚫ Adult AOD

▲ Youth AOD

Notes: Unduplicated DSHS clients covered by Medicaid and other DSHS medical programs in FY 2007 who needed but did not receive any treatment for the co-occuring disorders.

A mental health problem was flagged for DSHS clients if a person received treatment for mental illness or had a related diagnosis, procedure or prescription recorded in their medical claims in FY 2006 or 2007.

A substance abuse problem was flagged for DSHS clients if a person received treatment for alcohol or other drug abuse or dependency or had a related diagnosis, procedure, prescription, or arrest recorded during FY 2006 or 2007.

The number of clients per acre is used to identify areas of greatest client density in Snohomish County. Density equals total clients residing on an acre of land and in neighboring acres within a 1/2-mile radius, divided by the total acres in that geographic vicinity. This method represents an average number of clients in a area without revealing the actual addresses of individual clients.

Areas without DSHS clients may have other residents or be entirely unpopulated.

Sources: Research and Data Analysis, Integrated Client Database, May 2009; Snohomish Co. Human Services, May 2009.

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