

Table XX -EPA Review of Ecology's Non-Core Use Designations & Application of 13°C to Protect Spawning/Incubation

January 13, 2005 Draft

DOE Non-Core Designation & EPA Preliminary Findings	July-August Juvenile Salmon/Steelhead rearing (¹ WDFW Dist. unless noted)	Summer Salmon/Steelhead Spawning-Emergence (¹ WDFW Dist./ ² SASI Timing unless noted)	July-August Adult/Sub-Adult Bull Trout Use	³ Existing Temperatures (max 7DADM)	Habitat Conditions, Population Significance, Other Fish Uses, & Other Considerations
WRIA 1 - Nooksack					
<p>Nooksack River and North Fork Nooksack from mouth to Maple Creek (RM 49.7)</p> <p>EPA Preliminary Finding:</p> <p>RM0 - RM 49.7 = Core</p> <p>Note: for tributaries to Nooksack River below Anderson Creek, Core only for tributaries with fall chinook and winter steelhead spawning dist.</p> <p>13C from RM36 up (spring chinook, pinks, sockeye, and steelhead dist.) from Aug 1 - July 15</p> <p>13C RM24-36 (w. steelhead spawning dist) from Feb 15 - July 1</p>	<p><i>Chinook, spring</i> RM 28 - RM 49.7</p> <p><i>Chinook, fall</i> RM 0 - RM 49.7</p> <p><i>Coho</i> RM 3 - RM 49.7</p> <p><i>Pinks</i> RM 34 - RM 49.7</p> <p><i>Sockeye</i> RM 5 -RM 49.7</p> <p><i>Steelhead, winter</i> RM 10 - RM 49.7</p> <p><i>chinook</i> rearing in appreciable #s in lower mainstem throughout summer (seine data) [Coe 2004]</p> <p><i>chinook</i> out-migrate in mainstem throughout summer (trap data) [Pfundt, Unpub. Draft, 2004]</p> <p><i>steelhead</i> out-migrate in mainstem into August (trap data) [Nooksack Tribe, Unpub. Data 2003]</p>	<p><i>Chinook, spring</i> - RM 36 (0 RM N. Fork) up - Spawning late July - late Sept</p> <p><i>Chinook, fall</i> - RM 5 up - Spawning early Sept - mid Nov One record of pre-Sept chinook redds below RM36 (9/11/02 @ RM15-24); Redds typically documented throughout lower reach (RM1-36) late Sept and early Oct.</p> <p><i>Pinks</i> - RM 36 up - Spawning late Aug - late Sept</p> <p><i>Sockeye, riverine</i> - RM 40 up - Spawning not specified in SASI</p> <p><i>Steelhead</i> - RM 24 up - Spawning early March - early July</p>	<p><i>sub-adult</i> out-migration in mainstem until July 18 (9 years of smolt trap @RM 4, <25 fish total) [Nooksack Tribe, Unpub.data, 2003(seine)]</p> <p><i>adult and sub-adult</i> migration in mainstem in Aug. and Sept. (seine data) [Nooksack Tribe, Unpub.data, 2004]</p> <p><i>sub-adult and older juvenile</i> bull trout caught 7/24/02 (RM 30.4) and 9/16/03 (RM 10.9) in seine nets. [Nooksack Tribe, Unpub.data, 2004].</p> <p><i>adult and sub-adult</i> presence/migration & juvenile rearing -timing not provided [WDFW Dist.]</p>	<p>RM 3.4 @ Brennon 17.4°C (2001) 16.7°C (2002) 18.0°C (2003)</p> <p>RM 30.8 @ No Cedarville 17.6°C (2001) 17.3°C (2002) 18.4°C (2003)</p> <p>RM 40.8 above MF 15.5°C (2002)</p>	<p>Lower mainstem is largely unsurveyable in summer, due to turbidity.</p> <p>Anthropogenic impacts on South Fork likely elevate temperatures, which effect the lower mainstem temperatures. Extensive levy system in the mainstem from RM 24 downstream limits habitat complexity and availability.</p> <p>Nooksack River supports all 8 anadromous salmonids indigenous to the Pacific Northwest.</p> <p>North/middle and South Fork early Chinook are independent populations and are essential for the recovery of the ESU [FR 14308, 1999]. Both are considered unique stocks and are 2 of the only 5 genetic diversity units (GDUs) for the Puget Sound Chinook [Marshall et al. 1995].</p> <p>Nooksack River is 1 of 5 of NOAA's Chinook geographic areas in the ESU, in which a minimum of two populations are needed for recovery [proposed TRT guidance, NOAA].</p> <p>Nooksack bull trout are 1 of 8 populations in DPS [USFWS 2004]. Pinks are a separate GDU for North Puget Sound due to genetic uniqueness, (July entry) [Shaklee et al. 1995]</p>

DOE Non-Core Designation & EPA Preliminary Findings	July-August Juvenile Salmon/Steelhead rearing (¹ WDFW Dist. unless noted)	Summer Salmon/Steelhead Spawning-Emergence (¹ WDFW Dist./ ² SASI Timing unless noted)	July-August Adult/Sub-Adult Bull Trout Use	³ Existing Temperatures (max 7DADM)	Habitat Conditions, Population Significance, Other Fish Uses, & Other Considerations
<p>Nooksack River, South Fork, from mouth to Skookum Creek (river mile 14.3)</p> <p>EPA Preliminary Finding:</p> <p>RM0 - RM14.3 = Core</p> <p>13C From RM0 up (spring chinook, pink, sockeye, and steelhead spawning dist.) from Sept 1 - July 1</p>	<p><i>Chinook, fall</i> <i>Chum, fall</i> <i>Coho</i> <i>Pink</i> <i>Steelhead, winter</i> <i>Sockeye</i></p>	<p><i>Chinook, spring</i> - RM 0 up - Spawning late Aug - late Sept</p> <p><i>Pinks</i> - RM 0 up - Spawning late Aug - late Sept</p> <p><i>Sockeye, riverine</i> - RM 0 up - Spawning not specified in SASI</p> <p><i>Steelhead</i> - RM 0 up - Spawning mid Feb - mid June</p>	<p><i>adult and sub-adult</i> migration in SF Nooksack -Aug. and Sept. (snorkel data) [Maudlin et al. 2002, Dewberry 2003]</p> <p><i>Juvenile rearing</i> - Aug-Sept (snorkel/seining data) [Nooksack Tribe, Unpub.data, 2004(seine), Dewberry 2003 (snorkel)]</p> <p><i>adult and sub-adult</i> presence/migration & juvenile rearing -timing not provided [WDFW Dist.]</p>	<p>RM 19 @ Potter Rd 20°C (2002)</p>	
<p>Sumas River from Canadian border (river mile 12) to headwaters (river mile 23)</p> <p>EPA Preliminary Finding:</p> <p>RM 12 - RM23 = Non-Core</p>	<p>WDFW maps indicate presence/migration for:</p> <p><i>Chinook, fall</i> <i>Chum</i> <i>Coho</i> <i>Steelhead, winter</i> <i>Sockeye</i></p>	<p>No species spawning in segment in this time frame</p>			
<p>Non-core waters not specified in Table 602 (Dakota, California, Squalicum Chuckanut, Whatcom, Oyster, Whitehall, Colony and others)</p> <p>EPA Preliminary Finding: Core for waters w/fall chinook and/or steelhead spawning dist.</p> <p>13 for w. Steelhead spawning dist.</p>	<p><i>Chinook, fall</i> <i>Chum</i> <i>Coho</i> <i>Steelhead, winter</i></p>	<p><i>Chinook, fall</i> - Portions of some of these rivers - Spawning mid Sept - mid Nov</p> <p><i>Steelhead</i> - Some of some of these rivers - Spawning mid Feb - mid June</p> <p>Spawner database queried for chinook, steelhead, and Pink data in Silver, Wiser,</p>			

DOE Non-Core Designation & EPA Preliminary Findings from Feb 15 - June 15	July-August Juvenile Salmon/Steelhead rearing (¹ WDFW Dist. unless noted)	Summer Salmon/Steelhead Spawning-Emergence (¹ WDFW Dist./ ² SASI Timing unless noted)	July-August Adult/Sub-Adult Bull Trout Use	³ Existing Temperatures (max 7DADM)	Habitat Conditions, Population Significance, Other Fish Uses, & Other Considerations
WRIA 2 - San Juan					
No non-core segments identified in WRIA.		No spawning identified			
WRIA 3 – Lower Skagit-Samish					
<p>Skagit River from mouth to Skiyou Slough-lower end (river mile 25.6)</p> <p>EPA Preliminary Finding:</p> <p>RM0 - RM25.6 = Core</p> <p>Note: tributaries to this segment non-core, except those with winter steelhead spawning dist.</p> <p>13C from RM22 up (fall chinook and pink spawning dist.) from Sept 1 - May 15</p> <p>13C for w. Steelhead spawning dist. from Feb 15 - June 15</p>	<p><i>Chinook, fall</i> RM 3 - RM 25.6</p> <p><i>Coho</i> RM 3 - RM 25.6</p> <p><i>Sockeye</i> RM 3 -RM 25.6</p> <p><i>Steelhead, winter</i> RM 10 - RM 25.6</p>	<p><i>Chinook, fall</i> - RM 22 up - Spawning early Sept - late Oct - Multiple records of chinook redds in multiple years counted between August and Mid September throughout the reach (RM 22.4-93). Earliest date recorded was August 5th over the years 1952-1996 [WDFW SDB].</p> <p><i>Pinks</i> - RM 22 up - Spawning late Aug - late Oct</p> <p><i>Steelhead, winter</i> - Hansen Creek - trib to this segment - Spawning early March - early June</p>	<p><i>adult and sub-adult</i> -Smolt trap data @ RM 17 -emigration statistics -98% between April - July - peak (85%) May/June - 5% in July - 1% in Aug/Sept [WDFW Data 2002]</p> <p><i>adult presence</i> -RM 21 -June and July</p> <p><i>adult and sub-adult</i> presence/migration & juvenile rearing -timing not provided [WDFW Dist.]</p>		<p>Largest chum and pink populations in lower 48</p> <p>River supports all native salmonid stocks and has most abundant wild Chinook population in Puget Sound</p> <p>Largest population of bull trout in WA</p>

DOE Non-Core Designation & EPA Preliminary Findings	July-August Juvenile Salmon/Steelhead rearing (¹ WDFW Dist. unless noted)	Summer Salmon/Steelhead Spawning-Emergence (¹ WDFW Dist./ ² SASI Timing unless noted)	July-August Adult/Sub-Adult Bull Trout Use	³ Existing Temperatures (max 7DADM)	Habitat Conditions, Population Significance, Other Fish Uses, & Other Considerations
<p>Samish River (not specified in Table 602)</p> <p>EPA Preliminary Finding:</p> <p>RM0 - RM 10 (Friday Creek) = Non-Core Above & incl. Friday Creek = Core</p> <p>13C from w. Steelhead spawning dist. from Feb 15- June 15</p>	<p><i>Chinook, fall</i> <i>Coho</i> <i>Steelhead, winter</i> <i>Sockeye</i></p>	<p><i>Chinook, fall</i> - Above and incl. Friday Creek - Spawning early Sept - mid Nov - Chinook: no pre-mid September redd data found for Samish (earliest 9/16 in 1982). [WDFW SDB].</p> <p><i>Steelhead, winter</i> - Above and incl. Friday Creek - Spawning mid Feb - early June - Steelhead: sampled in 1997. Latest redd recorded 6/30 (RM 12.5-20.9) [WDFW SDB].</p> <p><i>Sockeye</i> - Small segment just below Friday Creek - Timing not in SASI</p> <p><i>Pinks</i> -no pre-mid September redd data found for Samish (earliest 9/21 in 1991).</p>		<p>RM @ 16.8°C (2001) 16.8°C (2002) 18.3°C (2003)</p>	
WRIA 4 – Upper Skagit					
<p>No non-core segments identified in Table 602</p> <p>EPA Preliminary Finding:</p> <p>13C applies to spring, summer, and fall chinook , pink, and winter steelhead dist. from Sept 1 - June 15, except til July 1 (Cascade river) and til July 15 (Suak River)</p>		<p><i>Chinook</i> - Upper Sauk, late July - early Sept - Lower Sauk, late Aug - early Oct - Upper Skagit, early Sept - late Oct</p> <p><i>Steelhead, winter</i> - Sauk, mid March - mid July - Cascade, early March - late June - Skagit, early March - early June</p>			
WRIA 5 - Stillaguamish					

DOE Non-Core Designation & EPA Preliminary Findings	July-August Juvenile Salmon/Steelhead rearing (¹ WDFW Dist. unless noted)	Summer Salmon/Steelhead Spawning-Emergence (¹ WDFW Dist./ ² SASI Timing unless noted)	July-August Adult/Sub-Adult Bull Trout Use	³ Existing Temperatures (max 7DADM)	Habitat Conditions, Population Significance, Other Fish Uses, & Other Considerations
<p>Stillaguamish River from mouth to north and south forks (river mile 17.8)</p> <p>EPA Preliminary Finding:</p> <p>RM0 - RM 17.8 = Non-Core</p> <p>Pilchuck Creek = Core for w. steelhead dist.</p> <p>13C from Feb 15 - July 1 for w. steelhead dist. on Pilchuck River</p>	<p><i>Chinook, fall</i> RM6 - RM17.8</p> <p><i>Coho</i> RM9 - RM 17.8</p> <p><i>Pinks</i> RM6 - RM 17.8</p> <p><i>Sockeye</i> RM3 - RM 17.8</p> <p><i>Steelhead, winter</i> RM3 - RM 17.8</p> <p>Juvenile chinook, coho, chum, pink, sockeye, steelhead, and cutthroat are seen @ RM. 6 throughout smolt trap season (Feb-end of June) [Griffith et al. 2001, and 2003; Stillaguamish, 2003]. Juvenile coho, chinook, chum, and cutthroat seined in Stillaguamish Old Channel in July and August, RM 6.2-8.5 [Stillaguamish Tribe, Unpublished Seine Data (2003 and 2004)]</p>	<p><i>Chinook, fall</i> - RM6-RM17.8 - Spawning early Sept - late Oct - Uncertain if spawning occurs in this reach in early/mid Sept. - One record of pre-mid September Chinook redds in mainstem RM 11-17.8, 9/15/79. Most years show late September as earliest spawning [WDFW SDB] note: based on 2 annual helicopter surveys one each in Sept and Oct.</p> <p><i>Pinks</i> - Possible spawning in segment - Timing is unclear - Total of 12 records of pre-mid September pink redd presence in WRIA 5 with earliest record in mainstem RM 5-17.8, 9/5/02; Most years show late September as earliest spawning in these locations [WDFW SDB].</p> <p><i>Steelhead, winter</i> - Pilchuck - trib to this segment - Spawning mid March - mid June</p>	<p><i>adult and sub-adult</i> presence/migration & juvenile rearing -timing not provided [WDFW Dist.]</p> <p>May 2002, 1 char (280mm) in Stillaguamish Old Channel, RM 6.2 (seine data) [Stillaguamish Tribe Unpub. Data 2003 and 2004]</p> <p>sampled 6 char juvenile/sub-adults (50-345mm) over the smolt trap study deployment period (Feb-mid June, 2001-2003). [Griffith et al. 2001, and 2003; Stillaguamish, 2003].</p>	<p>RM 11.1 nr Salvana 20.9°C (2002) 23.4°C (2003)</p>	<p>Migrating adult chinook have been observed in the N.F. Stillaguamish R.M. 21 as early as Mid May and early June. Adult migration in the Stillaguamish Mainstem continues through August. [Pers. Com, Pat Stevenson to Jody Brown both of Stillaguamish Natural Resources Department. Oct 2004]</p> <p>Summer coho smolt production is estimated to be reduced by 61% from historical production due to habitat loss in the form of beaver ponds and of sloughs [Pollock et al. 2004].</p> <p>All five species of Pacific salmon, as well as other anadromous salmonids steelhead, coastal cutthroat trout and bull trout are found in the Stillaguamish watershed [Washington State Conservation Commission 1999].</p>

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<p>Stillaguamish River, North Fork, from mouth to Boulder River (note: to RM 26.1?)</p> <p>EPA Preliminary Finding:</p> <p>RM0 - RM26 = Core</p> <p>13C From RM0 up (summer chinook, pink, and winter steelhead spawning dist.) from Sept 1 - July 1</p>	<p><i>Chinook, summer</i> <i>Coho</i> <i>Pinks</i> <i>Sockeye</i> <i>Steelhead, winter</i></p>	<p><i>Chinook, summer</i> - RM 0 up - Spawning mid Aug - late Oct <i>Pinks</i> - RM0 up - Spawning early Sept - late Oct <i>Steelhead, winter</i> - RM0 up - Spawning mid March - mid June</p>	<p><i>adult migration</i> in N.F. -RM 21 - 25.1 -May-August snorkel data from 1996 - 2003 (one survey per year conducted in August or September) [NOAA unpublished data, from George Pess, 2003]</p> <p><i>adult and sub-adult</i> presence/migration & juvenile rearing -timing not provided [WDFW Dist.]</p>	<p>RM 9.5 @ Cicero 20.7°C (2001) 19.9°C (2002) 22.3°C (2003)</p>	
<p>Stillaguamish River, South Fork, from mouth to Canyon Creek (river mile 33.7)</p> <p>EPA Preliminary Finding:</p> <p>RM0 - RM 33.7 = Core</p> <p>13C From RM0 up (fall chinook and winter Steelhead spawning dist.) from Sept 15 - July 1</p>	<p><i>Chinook, fall</i> <i>coho</i> <i>Steelhead, winter</i></p>	<p><i>Chinook, fall</i> - RM0 up - Spawning early Sept - late Oct - Total 19 records (RM 17.8-64.6) showing pre-mid Sept chinook redd presence in reaches within RM 17.8-64.6. Earliest Sept 9th (1956)[WDFW SDB].</p> <p><i>Pinks</i> - One record showing pre-mid Sept pink redd presence 9/6/83 (RM 33-34)[WDFW SDB]</p> <p><i>Steelhead, winter</i> -RM0 up - Spawning mid March - mid June</p>	<p><i>adult and sub-adult</i> presence/migration & juvenile rearing -timing not provided [WDFW Dist.]</p>	<p>RM 18.2 @ Arlington 22.6°C (2001) 20.9°C (2002) 24.9°C (2003)</p>	
<p>WRIA 6 - Island</p>					

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<p>Several streams into bay between Camino Island and Widbey Island (not specified in Table 602)</p> <p>EPA Preliminary Finding:</p> <p>All Non-Core streams = Non-Core</p>	<p>No salmon/steelhead distribution in these streams</p>				
WRIA 7 - Snohomish					
<p>Snohomish River from mouth and east of longitude 122° 13' 40"W upstream to latitude 47° 56' 30"N (southern tip of Ebey Island at river mile 8.1)</p> <p>Snohomish River upstream from latitude 47° 56' 30"N (southern tip of Ebey Island river mile 8.1) to confluence with Skykomish and Snoqualmie River (river mile 20.5)</p> <p>EPA Preliminary Finding:</p> <p>RM0 - RM10 = Non-Core RM10 - RM 20.5 = Core</p>	<p><i>Chinook, summer</i> RM10 - RM20</p> <p><i>Chum, fall</i> RM0 - RM15</p> <p><i>Coho</i> RM0 - RM 20</p> <p><i>Sockeye</i> RM0 - RM20</p> <p><i>Steelhead, winter</i> RM7 - RM20</p>	<p><i>Chinook, summer/fall</i></p> <ul style="list-style-type: none"> - Possible spawning in segment - Timing unclear - Total of 9 records in Snohomish River (RM 13.4-20.5) showing pre-mid Sept chinook redd presence. Earliest Sept 8th (1974-99)[WDFW SDB] <p><i>Pinks</i></p> <ul style="list-style-type: none"> - Possible spawning in segment - Timing unclear (even year?) - Total of 2 records in Snohomish (RM 14.3-20.5) showing pre-mid Sept pink redd presence. Earliest Sept 6th 2002 (1974-99)[WDFW SDB] 	<p><i>adult and sub-adult</i> presence/migration & juvenile rearing -timing not provided [WDFW Dist.]</p>		<p>WRIA is highest producer of Coho</p>

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<p>Skykomish River from mouth to May Creek (above Gold Bar at river mile 41.2)</p> <p>EPA Preliminary Finding:</p> <p>RM20.5 (mouth) - RM 41.2 = Core</p> <p>13C From RM 20.5 up (fall chinook, pink and w. steelhead spawning dist.) starting Sept 15 - July 1</p>	<p><i>Chum, fall</i> <i>Coho (upper part only)</i> <i>Steelhead, winter</i></p>	<p><i>Chinook, fall</i></p> <ul style="list-style-type: none"> - RM 20.5 up - Spawning early Sept - late Oct - Multiple records in multiple years in Skykomish R. (RM 20.5-43.6) showing pre-mid Sept chinook redd presence. Earliest Aug 29th in 1956 (1956-1989)[WDFW SDB] <p><i>Pinks</i></p> <ul style="list-style-type: none"> - RM 20.5 up - Spawning early Sept - late Sept - One record in Skykomish (RM 20.5-25) showing pre-mid Sept pink redd presence. Sept 4th 2002 [WDFW SDB] <p><i>Steelhead, winter</i></p> <ul style="list-style-type: none"> - RM0 up - Spawning mid March - mid June 	<p><i>adult migration</i></p> <p>Bull trout found in Snohomish, Skykomish and Snoqualmie rivers and tributaries [USFWS 2004]</p> <p><i>adult and sub-adult</i> presence/migration & juvenile rearing -timing not provided [WDFW Dist.]</p>	<p>RM25.6 @ Monroe 20.0°C (2001) 18.3°C (2002) 21.2°C (2003)</p>	
<p>Pilchuk River -mouth to RM 26.8 (not specified in Table 602)</p> <p>EPA Preliminary Finding:</p> <p>RM0 - RM26.8 = Core</p> <p>13C from Feb 15 - June 15</p>	<p><i>Chinook, fall</i> <i>Coho</i> <i>Steelhead, winter</i></p>	<p><i>Pinks</i></p> <ul style="list-style-type: none"> - Possible spawning in segment - Timing is unclear - No record of pre-mid September pink redd presence in Pilchuck River [WDFW SDB] <p><i>Chinook, fall (Snoqualmie Stock)</i></p> <ul style="list-style-type: none"> - RM 0 up - Spawning mid -Sept - early Nov - One record of pre-mid September chinook redd presence 9/6/01 (RM 1-15.3) [WDFW SDB] <p><i>Steelhead, winter</i></p> <ul style="list-style-type: none"> - RM0 up - Spawning mid March - mid June - Late May and early - mid June redds are common (RM 0-25.3) latest record 6/11 in 1998 [WDFW SDB] 	<p><i>sub-adults</i> documented in summer [snorkel surveys, unk source]</p> <p><i>adult and sub-adult</i> presence/migration & juvenile rearing -timing not provided [WDFW Dist.]</p>		

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<p>Sultan River from mouth to Chaplain Creek (river mile 5.9)</p> <p>EPA Preliminary Finding:</p> <p>RM0 - RM 5.9 = Core</p>	<p><i>Coho</i> <i>Steelhead, winter</i></p>	<p><i>Chinook, fall</i> - RM0 up - Spawning early Sept - late Oct - Two records (RM 4.5-9.7) showing pre-mid Sept chinook redd presence. Earliest 9/15 (1994-1997)[WDFW SDB]</p> <p><i>Pinks</i> - RM0 up - Spawning early Sept - late Sept - No record of pre-mid September pink redd presence in Sultan River [WDFW SDB]</p>	<p><i>adult and sub-adult</i> presence/migration & juvenile rearing -timing not provided [WDFW Dist.]</p>		
<p>Snoqualmie River and tributaries from mouth to west boundary of Twin Falls State Park on south fork (river mile 9.1)(note: Snoq south fork RM45 from mouth)</p> <p>EPA Preliminary Finding:</p> <p>RM0 - RM (20?) Harris Creek = Non-Core (Cherry Creek = Core) RM20 upstream and including Harris Creek = Core</p> <p>13C for w. steelhead spawning dist. from Feb 15 - June 15</p>	<p><i>Chinook, fall</i> <i>Coho</i> <i>Steelhead, winter</i></p>	<p>No spawning surveys data found in the mainstem Snoqualime reach below rm 21 [WDFW SDB]</p> <p><i>Chinook, fall</i> - Harris Creek up - Spawning mid Sept - early Nov - Many records (mainstem RM 20.5-40.3) showing pre-mid Sept chinook redd presence. Earliest 9/6 (1974-2002)[WDFW SDB]</p> <p><i>Pinks</i> - One record showing pre-mid Sept pink redd presence 9-14-83 (RM 20.5-24.9)[WDFW SDB]</p> <p><i>Steelhead, winter</i> - Cherry Creek, Tolt River, Snoq. River above and incl. Patterson Creek - Spawning mid March - mid June - Late May - early June redds recorded in Griffin, Tokul, Patterson and Cherry creeks [WDFW SDB]</p>	<p><i>adult and sub-adult</i> presence/migration & juvenile rearing -timing not provided [WDFW Dist.]</p>	<p>RM2.7 near Monroe 19.7°C (2002) 22.2°C (2003)</p> <p>RM42.3 @ Snoqualmie 19.3°C (2001) 18.4°C (2002) 20.5°C (2003)</p>	

DOE Non-Core Designation & EPA Preliminary Findings	July-August Juvenile Salmon/Steelhead rearing (¹ WDFW Dist. unless noted)	Summer Salmon/Steelhead Spawning-Emergence (¹ WDFW Dist./ ² SASI Timing unless noted)	July-August Adult/Sub-Adult Bull Trout Use	³ Existing Temperatures (max 7DADM)	Habitat Conditions, Population Significance, Other Fish Uses, & Other Considerations
WRIA 8 – Cedar-Sammamish					
<p>Cedar River from Lake Washington to the Maplewood Bridge (river mile 4.1)</p> <p>EPA Preliminary Finding:</p> <p>RM0 - RM4.1= Non -Core</p> <p>13C From RM 4 up (Sockeye and w. steelhead spawning dist) starting Sept 15 - June 15</p>	<p><i>Chinook, fall</i> <i>Coho</i> <i>Steelhead, winter</i></p> <p>Chinook outmigrants are captured at the screw trap (RM 0.3) on the Cedar at least until July 27th when the trap is removed for the season [Seiler et al. 2003]</p>	<p><i>Chinook, fall</i></p> <ul style="list-style-type: none"> - RM 4 up - Spawning mid Sept - early Nov - One record of pre-mid September chinook redd presence 9-8-98 (RM 9.3-13.7) [WDFW SDB] <p><i>Sockeye</i></p> <ul style="list-style-type: none"> - RM4 up - Spawning early Sept - late Jan - One record of sockeye spawning in this reach (based on dead counts)in early September also (1 record for Bear Cr, and 1 for Cottage Cr) [WDFW SDB] <p>Adult sockeye begin staging in the Cedar as early as the beginning of August prior to spawning [Muckleshoot Tribe, Unpub. Data]. Redd surveys are not conducted in the Cedar due to mass spawning</p> <p><i>Steelhead, winter</i></p> <ul style="list-style-type: none"> - RM 4 up - Spawning mid Dec - early June steelhead redds counted as late as June 3rd (RM 5.2). None record lower in River.[WDFW spawner data base]. 	<p><i>adult migration</i></p> <p>presence/migration</p> <p>-timing not provided [WDFW Dist.]</p>		<p>The Cedar River is a flow regulated river and is lined with levees on at least one side for approximately 18.4 out of the total 20 river miles below the diversion point at Landsburg Dam. [King County 1998].</p>

DOE Non-Core Designation & EPA Preliminary Findings	July-August Juvenile Salmon/Steelhead rearing (¹ WDFW Dist. unless noted)	Summer Salmon/Steelhead Spawning-Emergence (¹ WDFW Dist./ ² SASI Timing unless noted)	July-August Adult/Sub-Adult Bull Trout Use	³ Existing Temperatures (max 7DADM)	Habitat Conditions, Population Significance, Other Fish Uses, & Other Considerations
<p>Issaquah Creek</p> <p>EPA Preliminary Finding:</p> <p>Issaquah Creek = Core</p> <p>13C From RM 0 up (Sockeye and w. Steelhead spawning dist) starting Sept 15 - June 15</p>	<p><i>Chinook, fall</i> <i>Coho</i> <i>Steelhead, winter</i></p> <p>Juvenile chinook and coho are present in the reach at least until July 3rd when trap is pulled for season [Seiler et al. 2003]</p>	<p><i>Chinook, fall</i></p> <ul style="list-style-type: none"> - RM0 up - Spawning late Sept - early Nov - One record of pre-mid September chinook redd presence 9-12-94 (RM 0-5.2) [WDFW SDB]. Chinook in Issaquah Creek are on the spawning grounds as early as August 4th [King County DNR 2000]. <p><i>Sockeye</i></p> <ul style="list-style-type: none"> - RM0 up - Spawning early Sept - late Dec. - No data in the database indicating pre-mid September sockeye spawning in Issaquah Cr (1 record for Bear Cr, and 1 for Cottage Cr) [WDFW SDB] Sockeye in Issaquah Creek are on the spawning grounds as early as August 4th [King County DNR 2000]. <p><i>Steelhead, winter</i></p> <ul style="list-style-type: none"> - RM0 up - Spawning mid Dec - early June 	<p><i>adult migration</i></p> <ul style="list-style-type: none"> presence/migration -timing not provided [WDFW Dist.] 		
WRIA 9 - Duwamish-Green					

DOE Non-Core Designation & EPA Preliminary Findings	July-August Juvenile Salmon/Steelhead rearing (¹ WDFW Dist. unless noted)	Summer Salmon/Steelhead Spawning-Emergence (¹ WDFW Dist./ ² SASI Timing unless noted)	July-August Adult/Sub-Adult Bull Trout Use	³ Existing Temperatures (max 7DADM)	Habitat Conditions, Population Significance, Other Fish Uses, & Other Considerations
<p>Duwamish River from mouth south of a line bearing 254° true from the NW corner of berth 3, terminal No. 37 to the Black River (river mile 11.0)(Duwamish River continues as the Green River above the Black River). (Rearing/Migration Only)</p> <p>Green River from Black River (river mile 11.0 and point where Duwamish River continues as the Green River) to west boundary of Sec. 27-T21N-R6E (west boundary of Flaming Geyser State Park at river mile 42.3)</p> <p>EPA Preliminary Finding:</p> <p>RM0 - RM11 = Rearing/Migration Only RM11 - RM30 = Non-Core RM30 - RM42 (including Big Soos Creek) = Core</p> <p>13C From RM30 up for Fall Chinook and w. Steelhead spawning dist. from Sept 15 - July 1</p>	<p><i>Chinook, fall</i> RM20 - RM42 <i>Chum, fall</i> RM23 - RM42 <i>Coho</i> RM5 - RM42 <i>Steelhead, summer</i> RM13 - RM42 <i>Steelhead, winter</i> RM23 - RM42</p> <p>Juvenile shows use of the estuary by chinook until September 6th in both upper freshwater and lower marine areas of the estuary. Both chum and coho salmon use until at least mid July. Chum use lower estuary and coho are found throughout the estuary [Warner and Fritz 1995]</p>	<p><i>Chinook, fall</i> - Up river from Mill Creek - Spawning mid Sept - early Nov - Uncertain if spawning this early in lower reach - 19 records in multiple years (mainstem RM 25.4-41.5) showing pre-mid Sept chinook redd presence in Green R. Earliest 9/2 in 1999 (1979-2000). 15 records of pre-mid Sept chinook redd presence in (RM 41.4-61). Earliest 9/8 in 1999 [WDFW SDB]</p> <p><i>Sockeye</i> - One record of mid September sockeye redd presence 9-16-91 (RM 38-40.1) in Green River [WDFW SDB]</p> <p><i>Steelhead, winter</i> - Up river from Mill Creek - Spawning early March - mid June - Uncertain if spawning this late in lower reach.</p> <p><i>Pinks</i> - Extirpated in the early 20th century with only occassional strays until 1999 when approximately 1,000 pinks returned. Early redds observed during surveys 9/16-9/18 in the lower river (RM 33.8) to Flaming Geyser Park (RM 42.3) [Pers. Comm. Tom Cropp November 2004]</p>	<p><i>adult migration</i></p> <p><i>adult migration</i> presence/migration -timing not provided [WDFW Dist.]</p>	<p>RM12.4 @ Tukwila 20.7°C (2002)</p>	<p>Between RM 30 and 50 is the most significant fall spawning reach on the Green River [Pers. Comm. Muckleshoot Tribe & LFA]</p>
WRIA 10 Puyallup-White					

DOE Non-Core Designation & EPA Preliminary Findings	July-August Juvenile Salmon/Steelhead rearing (¹ WDFW Dist. unless noted)	Summer Salmon/Steelhead Spawning-Emergence (¹ WDFW Dist./ ² SASI Timing unless noted)	July-August Adult/Sub-Adult Bull Trout Use	³ Existing Temperatures (max 7DADM)	Habitat Conditions, Population Significance, Other Fish Uses, & Other Considerations
<p>Puyallup River from mouth to river mile 1.0 (Rearing /Migration only)</p> <p>Puyallup River from river mile 1.0 to Kings Creek (river mile 31.6)</p> <p>(NOTE: RM1 to RM7.3 is Puyallup Tribal jurisdiction)</p> <p>EPA Preliminary Finding:</p> <p>RM0-RM1 = Rearing/Migration Only RM7.3 - RM31 = Core</p> <p>13C From RM 10 up (pink and steelhead spawning dist) from Sept 15 - July 1; Clarke, Fennel, and Canyon Fall Creeks (fall chinook and steelhead spawning dist.) from Sept 15 - July 1</p>	<p><i>Chinook, fall</i> RM0 - RM31</p> <p><i>Coho</i> RM0 - RM31</p> <p><i>Pinks</i> RM10 - RM31</p> <p><i>Steelhead, winter</i> RM12 - RM20</p>	<p><i>Pinks</i></p> <ul style="list-style-type: none"> - RM10(White River) - RM28 - Spawning early Sept - late Oct - No data in the database indicating pre-mid September pink redd presence in Puyallup River [WDFW SDB] <p><i>Chinook, fall</i></p> <ul style="list-style-type: none"> - Carbon River; Clarks, Fennel, and Canyonfalls creeks (all tribs to this segment) - Spawning mid Sept - late oct - No data in the database indicating pre-mid September chinook redd presence in Puyallup River [WDFW SDB] <p><i>Steelhead, winter</i></p> <ul style="list-style-type: none"> - Puyallup and Carbon above confluence - Squally, Clarks, Fennel, and Canyonfalls creeks (all tribs to this segment) - Spawning early March - mid June - Spawning data for RM 29.8-41.8 1999-2000. Latest 5/17 [WDFW SDB] 	<p>sub-adults -seine capture at RM 4.4 [Puyallup Tribe]</p> <p><i>adult migration</i> presence/migration -timing not provided [WDFW Dist.]</p>	<p>RM 5.7 @ Puyallup 17.5°C (2002) 18.4°C (2003)</p>	<p>Last wild Chinook run in south Sound</p> <p>From RM 10.7 to 23 the Puyallup River is confined by levees resulting in lack of complexity and spawning habitat. Only sporatic spawning occurs in this reach. Higher quality habitat exists rm 25.5 to 30.8 due to levee pull back restoration. High quality spawning habitat located above Electron Dam power house (RM 30.8) [Marks et al. 2004].</p> <p>Early September chinook spawning data is difficult to collect due to turbid conditions in mainstem reaches of these glacial systems[R. Ladley Pers. Comm. 12/13/04]</p>
<p>Carbon River - mouth to National Forest Boundary (RM 18) (not specified in Table 602)</p> <p>EPA Preliminary Finding:</p> <p>RM0 - RM18 = Core</p> <p>13C From RM 0 up (fall chinook, pink, w. steelhead spawning dist) from Sept 15 - July 1</p>	<p><i>Chinook, fall</i> <i>Coho</i> <i>Chum, fall</i> <i>Steelhead, winter</i></p>	<p><i>Chinook, fall</i></p> <ul style="list-style-type: none"> - RM0 up RM8 on Carbon & up South Prairie Creek - Spawning mid Sept - late Oct - Earliest redd record 9/20 [WDFW SDB] <p><i>Pinks</i></p> <ul style="list-style-type: none"> - South Prairie Creek (trib to Carbon)(RM0 - RM10) - Spawning early Sept - late Oct - Earliest redd record 9/20 [WDFW SDB] <p><i>Steelhead, winter</i></p> <ul style="list-style-type: none"> - RM0 up - Spawning early March - mid June - 4 redd survey records latest 5/23 in 2001 	<p><i>adult migration</i> presence/migration -timing not provided [WDFW Dist.]</p>		<p>Early September chinook spawning data is difficult to collect due to turbid conditions in mainstem reaches of these glacial systems[R. Ladley Pers. Comm. 12/13/04]</p>

DOE Non-Core Designation & EPA Preliminary Findings	July-August Juvenile Salmon/Steelhead rearing (¹ WDFW Dist. unless noted)	Summer Salmon/Steelhead Spawning-Emergence (¹ WDFW Dist./ ² SASI Timing unless noted)	July-August Adult/Sub-Adult Bull Trout Use	³ Existing Temperatures (max 7DADM)	Habitat Conditions, Population Significance, Other Fish Uses, & Other Considerations
<p>White River - mouth to RM 27.1 (not specified in Table 602)</p> <p>EPA Preliminary Finding:</p> <p>RM0- RM4 = Non-Core RM4 - RM27 = Core</p> <p>13C (spring chinook and w. steelhead spawning dist.) Sept 1 - July 1</p> <p>13 for w. steelhead spawning dist. from Feb 15 - July 1</p>	<p><i>Coho</i> <i>Chinook, spring</i> <i>Chum, fall</i> <i>Steelhead, winter</i></p>	<p><i>Chinook, spring</i></p> <ul style="list-style-type: none"> - Lower part of Boise Creek (trib to this segment) - Spawning late Aug - late Sept -RM0 - RM23 (Boise Creek) <p>[Salmonscape, 2004] Note: not included in WDFW dist. maps</p> <ul style="list-style-type: none"> - Chinook spawning begins before mid-September but turbidity hinders surveys[R. Ladley, Pers. Comm. 12/13/04] - Earliest time of Chinook redd construction (between the diversion dam and the “R” stree birdge, Auburn) is typically September 10th, peaking during last week in September [R. Ladley, Pers. Comm., 12_13_04]. - 17 records of Chinook redd presence in White River but all are post mid Sept [WDFW SDB] - First redds and dead fish observed 9/22 (1st day of sampling) in the 2003 sample season (RM 7.5-24.3)[Marks et al. 2004]. <p><i>Steelhead, winter</i></p> <ul style="list-style-type: none"> - RM4 up - Spawning early March - mid June - Redds counted on 1st day of sampling 5/12 in 2003 (RM 7.5-24.3) [Marks et al. 2004] - Protracted steelhead run timing indicated by capture of gravid adults migrating upstream through the Buckley Trap in June [Puyallup Tribe, unpublished Data]. 	<p><i>sub-adults and adults are captured regularly at Buckley WDFW trap (RM 24)</i></p> <p><i>adult migration</i></p> <ul style="list-style-type: none"> presence/migration -timing not provided [WDFW Dist.] - Approximately 53% of the bull trout captured at the Buckley trap are captured in July and August [Muckleshoot Tribe, unpublished data] 	<p>RM8 @ R Street 20.9°C (2002) 20.5°C (2003)</p>	<p>Chinook have bimodal run timing in the White River with early spring run peak in mid-June and fall(native) run peak in mid-Sept.</p> <p>White River Spring Chinook are the only south Puget Sound chinook stock remaining with this adult run timing. This native stock was considered critically depressed long before the ESA listing [Johnson et al. 2003].</p> <p>Early September chinook spawning data is difficult to collect due to turbid conditions in mainstem reaches of these glacial systems[R. Ladley Pers. Comm. 12/13/04]</p> <p>From Buckley trap (RM 24.3) to RM 11 has frequent and concentrated use by chinook and steelhead spawners. Also high chum use in some sections. Below RM 11 levees and other habitat alteration limits spawning habitat for salmon and steelhead [Marks et al. 2004].</p> <p>2003 unprecedented return of Pinks to the White R. system due to removal of TPU Pipeline barrier (RM 23.4), Pink spawning observed in many tributaries including: Greenwater, Clearwater, Pinochle, Cripple, Huckleberry, and Wrong creeks. New range extension noted in silver Springs Creek [R. Ladley, Pers. Comm., 12/8/04]</p>
WRIA 11-Nisqually					

DOE Non-Core Designation & EPA Preliminary Findings	July-August Juvenile Salmon/Steelhead rearing (¹ WDFW Dist. unless noted)	Summer Salmon/Steelhead Spawning-Emergence (¹ WDFW Dist./ ² SASI Timing unless noted)	July-August Adult/Sub-Adult Bull Trout Use	³ Existing Temperatures (max 7DADM)	Habitat Conditions, Population Significance, Other Fish Uses, & Other Considerations
<p>Nisqually River from mouth to Alder Dam (river mile 44.2)</p> <p>EPA Preliminary Finding:</p> <p>RM0 - RM44.2 = Core All tribs to this segment, except Ohop and Mashel creeks = Non-Core</p> <p>13C From RM 4 up (pink and w. steelhead spawning dist.) from Sept 15 - July 1</p>	<p><i>Chinook, fall</i> <i>Coho</i> <i>Pinks</i> <i>Steelhead, winter</i></p> <p>Age 0 chinook, coho, and steelhead captured in the mainstem by electrofishing and seining at locations at RM 12 and RM 33 indicating juvenile summer rearing habitat [Tyler 1980].</p> <p>Fingerling fall chinook rear in the Nisqually late February through early June [Kerwin 1999].</p>	<p><i>Chinook, fall</i> - RM0 up - Spawning mid Sept - early Nov - 5 records in Nisqually (3.3-26.2) of pre-mid Sept chinook redd presence. Earliest 9/6 (1983-1989)[WDFW SDB]</p> <p><i>Pinks, odd year</i> - RM4 up - Spawning early Sept to Late Oct - 2 records in Nisqually (RM2.4-7.8 and 25.8-26.2) showing pre-mid Sept pink redd presence. Both 9/11/1983[WDFW SDB]</p> <p><i>Steelhead, winter</i> - RM4 up - Spawning mid March - mid June - Peak emergence of steelhead fry is July 10th - 23rd[Kerwin 1982]. - Steelhead spawning distribution includes Lower Mashel rm 0-6.6 with May/June spawning latest 6/9 based on surveys 96-98.</p>		<p>RM 3.4 @ Nisqually 16.5°C (2001) 15.4°C (2002) 17.5°C (2003)</p> <p>Thermograph data from 1984 at RM 13.1 and 19.4 record highest daily mean summer temperatures of 15°C and 16.5°C [unpublished data, Nisqually Tribe, 1984].</p>	<p>Construction of Alder Dam in the 1950s played significant role in the extirpation of the only spring chinook stock. Stray spring chinook are observed in the basin which may result in recolonization in the future [Kerwin 1999].</p> <p>Alder/LaGrande Reservoirs (RM 44.1/42.5) have major influence on downstream summer water temperature. Alterations from the historic condition include: reduced daily temperature variation, reduced peak summer temperatures, and increased temperature of the lower River in late summer/early fall period[Whiley and Walter 2000]. The exception to this are in RM 26.2-12.5 where the Centralia Water Diversion has the primary influence on water temperature due to water withdraw during the summer months.</p> <p>Stock status for bull trout in the basin is unknown. Only limited data (report of one captured juvenile in the 1980's) are available [Kerwin 1999].</p>
WRIA 12 - Chambers-Clover					
<p>Clover Creek from outlet of Lake Spanaway to inlet of Lake Steilacoom</p> <p>EPA Preliminary Finding: Non - Core</p>	<p>No species mapped as rearing</p>	<p>No species spawning in segment in this timeframe. Coho salmon use this segment for spawning in winter/spring.</p>			
WRIA 13 – Deschutes					

DOE Non-Core Designation & EPA Preliminary Findings	July-August Juvenile Salmon/Steelhead rearing (¹ WDFW Dist. unless noted)	Summer Salmon/Steelhead Spawning-Emergence (¹ WDFW Dist./ ² SASI Timing unless noted)	July-August Adult/Sub-Adult Bull Trout Use	³ Existing Temperatures (max 7DADM)	Habitat Conditions, Population Significance, Other Fish Uses, & Other Considerations
<p>Deschutes River from mouth to boundary of Snoqualmie National Forest (river mile 48.2)</p> <p>EPA Preliminary Finding:</p> <p>RM0 - RM12? (Offut lake outlet) = Non -Core</p> <p>RM12 -RM48.2 = Core</p>	<p><i>Chinook, fall</i> <i>Coho</i> <i>Steelhead, winter</i></p> <p>Screw-trap operated near mouth Feb-July captured abundance age-0 chinook and steelhead smolts 2001-2002 [Seiler et al. 2002]</p>	<p><i>Chinook, fall</i></p> <ul style="list-style-type: none"> - RM 3 up - Spawning late Sept - early Oct - No mid-September data found [WDFW SDB] <p><i>Steelhead, winter</i></p> <ul style="list-style-type: none"> - RM 3 up - No timing info in SASI - No steelhead spawning data found - Spawning early Jan/Feb through early April [Haring and Konovsky 1999] 	<p>None</p>	<p>RM 0.6 @ E ST Bridge 19.4°C (2001) 19.1°C(2002) 19.9°C (2003)</p> <p>Upper Deschutes tributaries have 7DADM <16.5C (Johnson, Huckleberry, Fall, and Spring creeks)[TMDL Progress report #2, Roberts 2003]</p>	<p>Estimated wild coho smolt production of 60,000 (368/sq mile) in 2002 and 892 in 2001 based on smolt trap data from below Tumwater Falls (Seiler et al. 2002 pg13).</p> <p>High density coho rearing in July and August. The middle and upper reaches and all perennial tributaries below the upper falls are juvenile coho summer rearing habitat. During low summer flow coho use pool habitat (Sullivan et al. 1987).</p> <p>Steelhead spawning areas incl. Mainstem Deschutes, Offut Lake Outlet, Silver Springs, Reichel, Fall, Mitchell, and Johnson creeks.[Haring and Konovsky 1999]. Upper most distribution in the Deschutes is rm 41.</p>
<p>Mclane & Percival Creeks (not specified in Table 602)</p> <p>EPA Preliminary Finding: Non - Core</p>	<p><i>Chinook, fall</i> (rearing in Percival) <i>Chinook, summer</i> (presence) <i>Coho</i> (presence)</p>	<p>2 records showing fall and spring chinook redds (Percival Creek). Both after mid-Sept [WDFW SDB].</p>		<p>Mclane Creek– 7Day ave max 2002 is 17.5C [unpublished data from SquaxinTribe]</p>	<p><i>For the Eld Inlet wild stock, the primary spawning tributary in W13 is McLane Creek (also spawn in Green Cove and Perkins creeks).</i></p>
<p>WRIA 14 – Kennedy-Goldsborough</p>					

DOE Non-Core Designation & EPA Preliminary Findings	July-August Juvenile Salmon/Steelhead rearing (¹ WDFW Dist. unless noted)	Summer Salmon/Steelhead Spawning-Emergence (¹ WDFW Dist./ ² SASI Timing unless noted)	July-August Adult/Sub-Adult Bull Trout Use	³ Existing Temperatures (max 7DADM)	Habitat Conditions, Population Significance, Other Fish Uses, & Other Considerations
<p>No non-core segments identified in Table 602. Non-core waters not specified in Table 602 (Johns, Deer, Cranberry, Malaney, Goldsborough, Shelton, Campbell, Uncle Johns, Mill-Gosnell, Perry, and others)</p> <p>EPA Preliminary Finding:</p> <p>Deer, Cranberry, Johns, Malaney, Uncle Johns, Campbell, Shelton, Goldsborough, Mill, and Perry Creeks = Core</p>	<p><i>Chinook</i> (presence) <i>Coho</i> (presence) <i>Chum, fall</i> (presence) <i>Steelhead, winter</i> (presence)</p> <p>Coho juveniles rear in accessible stream reaches with significant runs produced in Kennedy, Skookum, Mill, Goldsborough, Johns, Deer, Cranberry and Sherwood creeks [Kuttel, 2002, Squaxin Tribe Unpub. Data, 2004].</p> <p>Winter steelhead rear in Mill, Goldsborough, Johns, Cranberry, Deer, Spring, Malaney, Uncle John, and Campbell creeks [Kuttel, 2002].</p>	<p><i>Chinook, fall</i> - Skookum, Johns, Goldborough, Sherwood, Deer had chin redds but only 2 record before mid-sept. One in Sherwood 9-11-2001 (.1-1.1) and one in Goldsborough 9-10-2001 (.5-2.3) [WDFW SDB]</p> <p><i>Chum, summer</i> - Johns, Cranberry, and Deer Creeks - Spawning early Sept-October - Of streams sampled in the SDB (including Johns, Goldsborough, Sherwood, Cranberry creeks) only Sherwood Creek had chum redds recorded before mid-sept. (9/14 in 1984) [WDFW SDB]</p> <p><i>Steelhead, winter</i> - Goldsborough, Shelton, Mill - Timing info not in SASI - Spawn early Feb-early April</p> <p>Several distinct stocks of fall chum spawn early Oct-early Jan [Kuttel 2002].</p>	<p>Bull trout not known to be present in WRIA 14. These rainfall dominated streams do not provide habitat typically favored by bull trout [Kuttel 2002]</p>	<p>Gosnell Cr. <16°C above lk Isabella [Ahmed and Sullivan 2004]</p> <p><17°C for Goldsborough, <16°C for Skookum Creeks [Squaxin Tribe, Unpub. Data, 2003]</p>	<p>Chinook were not historically present in these streams of WRIA 14. Presence of chinook is likely from past hatchery plants or straying from other hatchery of naturally produced stocks [Kuttel, 2002]</p> <p>The Simpson TMDL set a target of 16°C for Goldsborough and Mill-Gosnell.</p>
WRIA 15 – Kitsap					

DOE Non-Core Designation & EPA Preliminary Findings	July-August Juvenile Salmon/Steelhead rearing (¹ WDFW Dist. unless noted)	Summer Salmon/Steelhead Spawning-Emergence (¹ WDFW Dist./ ² SASI Timing unless noted)	July-August Adult/Sub-Adult Bull Trout Use	³ Existing Temperatures (max 7DADM)	Habitat Conditions, Population Significance, Other Fish Uses, & Other Considerations
<p>No non-core segments identified in Table 602. Non-core waters not specified in Table 602 (Blackjack, Ross, Anderson, Gorst, Chico, Strawberry, Clear, Barker, Gamble, Martha John and others)</p> <p>EPA Preliminary Finding:</p> <p>Lower Chico below Kistap Creek = Non-Core</p> <p>Blackjack, Ross, Anderson, Gorst, Chico, Wildcat, Dickerson, Lost, Strawberry, Clear, Barker Creeks = Core</p> <p>Creeks into Port Gamble Bay (e.g., Gamble and Martha John Creeks) = Core</p> <p>13C applies to summer chum and w. steelhead spawning dist. in Union River from Sept 1 - June 15, in Dewatto and Tahuya Rivers from Sept 15 - June 15, in Anderson and Big Beef Rivers from Sept 15 - May 15</p>	<p><i>Coho Steelhead, winter</i> (Blackjack, Ross, Anderson, Gorst, Chico, Clear, Barker)</p> <p>Coho utilize all accessible lowland streams of the Kitsap Peninsula [Haring 2002]</p>	<p><i>Chum, summer</i></p> <ul style="list-style-type: none"> - Case Inlet summer chum stock spawns September- late October [Haring 2002] - Early September spawning recorded in Anderson Cr., Dewatto R. Tahuya R. and Union R. [WDFW and Point No Point Treaty Tribes 2001; WDFW SDB] - Chum spawn earlier than SASI reports (September not October) in Coulter and Rocky creeks [Pers. Comm. J. Kovonsky 11/16] <p><i>Chinook</i></p> <ul style="list-style-type: none"> - Pre-mid Sept redds recorded in Burley, Blackjack, Grost, Dogfish creeks and Dewatte and Union rivers [WDFW SDB]. - Chinook redds recorded in late Aug and early Sept in Coulter Creek [Bill Evans WDFW unpublished Data 2004] <p><i>Steelhead, winter</i></p> <ul style="list-style-type: none"> - Winter SASI stocks generally spawn early Feb-early April [Haring 2000]. Main producers are Dewatto and Union, and Tahuya rivers. [Kuttel 2003]. Dewatto, Union and Tahuya rivers have May redd records [WDFW SDB] 	<p>No char presence in these low elevation streams [Haring 2000, Kuttel 2003].</p>	<p><16°C for Coulter Creek [Squaxin Tribe, Unpub. Data, 2003]</p> <p>Blackjack Creek 15.5 - 2003 16.0 - 2004 Ross Creek 12.5 - 2003 11.2 - 2004 Anderson Creek 12.3 - 2003 12.3 - 2004 Gorst Creek 13.6 - 2004 Chico Creek 18.9 - 2004 Wildcat Creek 17.4 - 2003 17.6 - 2004 Dickerson Creek 15.8 - 2004 Lost Creek 15.3 - 2003 15.7 - 2004 Strawberry 16.3 - 2003 16.3 - 2004 WF Clear Creek 15.4 - 2003 15.1 - 2004 Barker Creek 16.0 - 2003 15.9 - 2004 [Max 7DADM data from Suquamish Tribe, unpublished data]</p>	<p>Overall escapement has declined to critically low levels for Hood Canal summer chum. This stock spawns in late Aug - October. The Union River stock spawns 1-2 wks earlier [Kuttel 2003]</p>

DOE Non-Core Designation & EPA Preliminary Findings	July-August Juvenile Salmon/Steelhead rearing (¹ WDFW Dist. unless noted)	Summer Salmon/Steelhead Spawning-Emergence (¹ WDFW Dist./ ² SASI Timing unless noted)	July-August Adult/Sub-Adult Bull Trout Use	³ Existing Temperatures (max 7DADM)	Habitat Conditions, Population Significance, Other Fish Uses, & Other Considerations
WRIA 16 – Skokomish-Dosewallips					
<p>No non-core segments identified in Table 602</p> <p>EPA Preliminary Finding:</p> <p>13C applies to summer chum, pink, and w. steelhead spawning dist. in WRIA Sept 15 - July 1, except til May 15 if no w. steelhead spawning</p>		<p><i>Chum, summer</i></p> <ul style="list-style-type: none"> - Spawing mid Sept - mid Oct in WRIA - Mass spawning on start date <p><i>Pink</i></p> <ul style="list-style-type: none"> - Spawning early Sept - early Oct in WRIA <p><i>Steelhead, winter</i></p> <ul style="list-style-type: none"> - Spawning mid Feb - mid June in WRIA 			
WRIA 17 – Quilcene - Snow					
<p>No non-core segments identified in Table 602</p> <p>EPA Preliminary Finding:</p> <p>13C applies to summer chum and w. steelhead spawning dist Sept 15 - July 1</p>		<p><i>Chum, summer</i></p> <ul style="list-style-type: none"> - Spawning mid or early Sept - mid Oct in WRIA - Mass spawning on start date <p><i>Steelhead, winter</i></p> <ul style="list-style-type: none"> - Spawning mid Feb - mid June in WRIA 			
WRIA 18 – Elwha-Dungeness					

DOE Non-Core Designation & EPA Preliminary Findings	July-August Juvenile Salmon/Steelhead rearing (¹ WDFW Dist. unless noted)	Summer Salmon/Steelhead Spawning-Emergence (¹ WDFW Dist./ ² SASI Timing unless noted)	July-August Adult/Sub-Adult Bull Trout Use	³ Existing Temperatures (max 7DADM)	Habitat Conditions, Population Significance, Other Fish Uses, & Other Considerations
<p>Dungeness River from mouth to Canyon Creek (river mile 10.8)</p> <p>EPA Preliminary Finding:</p> <p>RM0 - RM10.8 = Core</p> <p>Note: Small tribs (except Mattriotti) and irrigation canals to/from this reach = Non-core</p> <p>13C applies to spring chinook, pink, and w. steelhead spawning dist. from Sept 1- June 15 (Morse Cr also)</p>	<p><i>Chinook, spring</i> <i>Coho</i> <i>Pink</i> <i>Steelhead, winter</i></p>	<p><i>Chinook, spring</i></p> <ul style="list-style-type: none"> - RM0 up - Spawning mid Aug to mid Oct - Consistent start time of mid to late August thorough rm 10.8 and above, sample years 1986-2002. [Jamestown s' Klallam Tribe, Unpub. Data 2004] <p><i>Pinks, odd year</i></p> <ul style="list-style-type: none"> - RM0 up - Spawning mid Sept to late Oct (lower) - Spawning early Aug to mid Sept (upper) - Verified in SDB. - Other streams with Aug-Sept spawning are Morse Cr. and Elwah R. [WDFW SDB] <p><i>Steelhead, winter</i></p> <ul style="list-style-type: none"> - RM0 up - Spawning mid Feb- early June - SASI dist for Morse, Siebert, and McDonald creeks. - Steelhead spawning concludes in early to mid June in WRIA 18 streams [R. Cooper, WDFW, Pers. Comm. 11/22/04] - May-Jun steelhead spawning data found only for Morse and Elwah [[WDFW SDB]. Other data from R. Cooper WDFW shows Dungeness, Greywolf, Siebert, and McDonald with May-June timing [WDFW Unpub. Data 2004]. 	<p><i>adult migration</i></p> <p>presence/migration</p> <p>-timing not provided</p> <p>[WDFW Dist.]</p>	<p>RM 1 near Mouth</p> <p>17.2°C (2002)</p> <p>17.5°C (2003)</p>	<p>Essential Population for Recovery of Chinook</p> <p>Dungeness water user association is working to restore instream flows and lower temperatures for listed fish (HCP)</p>

DOE Non-Core Designation & EPA Preliminary Findings	July-August Juvenile Salmon/Steelhead rearing (¹ WDFW Dist. unless noted)	Summer Salmon/Steelhead Spawning-Emergence (¹ WDFW Dist./ ² SASI Timing unless noted)	July-August Adult/Sub-Adult Bull Trout Use	³ Existing Temperatures (max 7DADM)	Habitat Conditions, Population Significance, Other Fish Uses, & Other Considerations
<p>Non-core waters not specified in Table 602 (Tumwater, Valley, Peabody, White, and Ennis Creeks)</p> <p>EPA Preliminary Finding:</p> <p>Ennis Creek = Core Others above = Non-Core</p>	<p><i>Steelhead, winter</i> (Ennis Creek)</p>	<p><i>Steelhead, winter</i></p> <ul style="list-style-type: none"> - RM0 up - Spawning mid Feb- early June <p>Only data found were a few records of coho in Ennis Creek and one record for White Creek also [WDFW SDB]. No other data for these streams found.</p>			
<p>EPA Preliminary Finding:</p> <p>13C applies to pink, chinook, and w. steelhead spawning dist on the Elwha river from Sept 1 - July 1</p>		<p><i>Chinook</i></p> <ul style="list-style-type: none"> - RM 0 up - Spawning late Aug - mid Oct - Both spring and summer chinook have pre mid-September spawning in the Elwha <p><i>Pinks</i></p> <ul style="list-style-type: none"> - RM0 up - Spawning early Sept - late Oct -Earliest pink spawning in mid August, earliest redds 8/16 in 2001 (rm 0-1.1) <p><i>Steelhead</i></p> <ul style="list-style-type: none"> - RM0 up - Spawning mid Feb - mid June - Mid May spawning occurs in Elwha (latest 5/19 in 2003). 			
<p>WRIA 19 - Lyre/Hoko</p>					

DOE Non-Core Designation & EPA Preliminary Findings	July-August Juvenile Salmon/Steelhead rearing (¹ WDFW Dist. unless noted)	Summer Salmon/Steelhead Spawning-Emergence (¹ WDFW Dist./ ² SASI Timing unless noted)	July-August Adult/Sub-Adult Bull Trout Use	³ Existing Temperatures (max 7DADM)	Habitat Conditions, Population Significance, Other Fish Uses, & Other Considerations
<p>No non-core segments identified in Table 602</p> <p>EPA Preliminary Finding:</p> <p>13C for w. steelhead spawning dist. from Feb 15 - July 1</p>		<p><i>Chinook, fall</i> - earliest chinook spawning in WRIA 19 is in mid-late Sept. in Hoko, Little Hoko, clallam, Pysht, and Sekiu [WDFW SDB].</p> <p><i>Steelhead, winter</i> - Numerous rivers in WRIA 19 - Spawning mid Feb - mid June - Winter hatchery steelhead runs and spring native steelhead runs spawn in March/April No other species spawn in the summer period that would warrant the 13°C temperature criteria.[Pers. Comm. Caroline Peterschmidt to L. Herger 11/17/04]. - Steelhead spawning concludes in early to mid June in WRIA 18 and 19 streams [R. Cooper, WDFW, Pers. Comm. 11/22/04] - May-June spawning recorded in the following WRIA 19 streams: Salt, Nordstrom, Bear, Deep, Green, N.F. Green creeks and East Twin, West Twin, Pysht, S.F. Pysht, Callam, Hoko, Little Hoko,, and Sekiu rivers [WDFW Unpub. Data 1998-2004, supplied by R. Cooper 2004]</p>	<p>No known bull trout use in WRIA 19</p>		<p>Watershed has reduced riparian shading due to land use practices.</p>
WRIA 20 - Soleduc					
<p>Dickey River</p> <p>EPA Preliminary Finding:</p> <p>Core</p>	<p><i>Chinook, fall</i> <i>Coho</i> <i>Steelhead, winter</i></p>	<p><i>Steelhead, winter</i> - RM1 up - Spawning mid March - mid June - May-June steelhead spawning recorded in WRIA 20 in Goodman, Minter, and Mosquito creeks [WDFW Unpub. Data, 1998-2004. Supplied by R. Cooper 2004]</p> <p>Chinook and coho salmon spawn in segment at other times.</p>		<p>summer daily max temperatures exceed 18°C.</p>	<p>One of the more productive coho producing basins in WA, with 864 smolts/mi² [Quileute Letter, 2003]</p>

DOE Non-Core Designation & EPA Preliminary Findings	July-August Juvenile Salmon/Steelhead rearing (¹ WDFW Dist. unless noted)	Summer Salmon/Steelhead Spawning-Emergence (¹ WDFW Dist./ ² SASI Timing unless noted)	July-August Adult/Sub-Adult Bull Trout Use	³ Existing Temperatures (max 7DADM)	Habitat Conditions, Population Significance, Other Fish Uses, & Other Considerations
<p>EPA Preliminary Finding:</p> <p>13C applies to spring/summer chinook and w. steelhead spawning dist. in WRIA from Sept 15 - July 1, except for w. steelhead only spawning dist. from Feb 15 - July 1</p>		<p><i>Chinook</i></p> <ul style="list-style-type: none"> - Spawning mid August - late Sept (Hoh) - Late August spawning based on observations of new redds observed in Hoh River mainstem in multiple years (Hoh Tribe Unpub. Redd Data 1980-1995). <p><i>Steelhead</i></p> <ul style="list-style-type: none"> - Spawning mid March - mid June in WRIA - New redds observed in mainstem Hoh River after June 1st (Hoh Tribe Unpub. Data1980-1995). - Late May through early June redds observed in Hoh tributaries (South Fork Big Flate, Lower South Fork Hoh River, Mount Tom Creek, Owl Creek and winfield Creek (Hoh Tribe Unpub. Data1980-1995). 			
WRIA 21 - Queets/Quinault					
<p>No non-core segments identified in Table 602</p> <p>EPA Preliminary Finding:</p> <p>13C applies to spring/summer chinook and w. steelhead spawning dist. in WRIA from Sept 15 - July 1</p>					
WRIA 21 - Lower Chehalis					

DOE Non-Core Designation & EPA Preliminary Findings	July-August Juvenile Salmon/Steelhead rearing (¹ WDFW Dist. unless noted)	Summer Salmon/Steelhead Spawning-Emergence (¹ WDFW Dist./ ² SASI Timing unless noted)	July-August Adult/Sub-Adult Bull Trout Use	³ Existing Temperatures (max 7DADM)	Habitat Conditions, Population Significance, Other Fish Uses, & Other Considerations
<p>Chehalis River from upper boundary of Grays Harbor at Cosmopolis (river mile 3.1, longitude 123° 45' 45"W) to Scammon Creek (river mile 65.8)</p> <p>Note: Upper WRIA boundary (RM33 - Porter Creek)</p> <p>EPA Preliminary Finding: Non - Core</p>	<p><i>Chinook, fall</i> <i>Chinook, summer</i> <i>Coho</i> <i>Steelhead, winter</i> (upper part of WRIA)</p>	<p>No species spawning in segment in this timeframe</p>	<p><i>adult migration</i> presence/migration -timing not provided [WDFW Dist.]</p>		
<p>Hoquiam River (continues as west fork above east fork) from mouth to river mile 9.3 (Dekay Road Bridge)(upper limit of tidal influence) (Rearing/Migration only)</p> <p>Hoquiam River basin (not specified in Table 602)</p> <p>EPA Preliminary Finding: RM0 - RM9.3 = Rearing/Migration Steelhead spawning dist = Core Lower East Fork (10 miles) = Non-Core</p>	<p><i>Chinook, fall</i> <i>Coho</i> <i>Steelhead, winter</i></p>	<p><i>Steelhead, winter</i> - Spawning mid Feb - mid June</p>			
<p>Humtulpis River and tributaries from mouth to Olympic National Forest boundary on east fork (river mile 12.8)and west fork (river mile 40.4)(main stem continues as west fork)</p> <p>EPA Preliminary Finding: Steelhead spawning dist = Core Lower 4 miles = Non -Core</p>	<p><i>Chinook, fall</i> <i>Chum, fall</i> <i>Coho</i> <i>Steelhead, summer</i> <i>Steelhead, winter</i></p>	<p><i>Steelhead, winter</i> - Spawning mid Feb - late June</p>	<p><i>adult migration</i> presence/migration -timing not provided [WDFW Dist.]</p>		

DOE Non-Core Designation & EPA Preliminary Findings	July-August Juvenile Salmon/Steelhead rearing (¹ WDFW Dist. unless noted)	Summer Salmon/Steelhead Spawning-Emergence (¹ WDFW Dist./ ² SASI Timing unless noted)	July-August Adult/Sub-Adult Bull Trout Use	³ Existing Temperatures (max 7DADM)	Habitat Conditions, Population Significance, Other Fish Uses, & Other Considerations
<p>Satsop River from mouth to west fork (river mile 6.4)</p> <p>EPA Preliminary Finding:</p> <p>RM0 - RM6.4 = Core</p>	<p><i>Chinook, fall</i> <i>Chinook, summer</i> <i>Chum, fall</i> <i>Coho</i> <i>Steelhead, winter</i></p>	<p><i>Chinook, summer</i> - RM0 up - Spawning early Sept - mid Oct</p> <p><i>Steelhead, winter</i> - Spawning mid Feb - late June</p>	<p><i>adult migration</i> presence/migration -timing not provided [WDFW Dist.]</p>		
<p>Wishkah River from mouth to river mile 6 (SW ¼ SW ¼ NE ¼ Sec.21-T18N-R9W)(Rearing/Migration only)</p> <p>Wishkah River from river mile 6 (SW 1/4SW ¼ NE ¼ ¼ Sec.21-T18N-R9W) to west fork (river mile 17.7)</p> <p>EPA Preliminary Finding:</p> <p>RM0 - RM6 = Rearing/Migration Steelhead spawning dist = Core RM6 - about RM15 = Non-Core</p>	<p><i>Chinook, fall</i> <i>Coho</i> <i>Steelhead, winter</i></p>	<p><i>Steelhead, winter</i> - Spawning mid Feb - late June</p>	<p><i>adult migration</i> presence/migration -timing not provided [WDFW Dist.]</p>		
<p>Wynoochee River from mouth to Olympic National Forest boundary (river mile 45.9)</p> <p>EPA Preliminary Finding:</p> <p>Steelhead spawning dist = Core Lower 2 miles = Non -Core</p>	<p><i>Chinook, fall</i> <i>Chum, fall</i> <i>Coho</i> <i>Steelhead, winter</i></p>	<p><i>Steelhead, winter</i> - Spawning mid Feb - late June</p>	<p>No presence shown in Wynoochee [WDFW Dist.]</p>		
<p>Wildcat Creek (not specified in Table 602)(unless mistakingly noted in WRIA 23)</p> <p>EPA Preliminary Finding:</p> <p>Steelhead spawning dist = Core</p>	<p><i>Chinook, fall</i> <i>Chum, fall</i> <i>Coho</i> <i>Steelhead, winter</i></p>	<p><i>Steelhead, winter</i></p>	<p>No presence shown in Wildcat [WDFW Dist.]</p>		

DOE Non-Core Designation & EPA Preliminary Findings	July-August Juvenile Salmon/Steelhead rearing (¹ WDFW Dist. unless noted)	Summer Salmon/Steelhead Spawning-Emergence (¹ WDFW Dist./ ² SASI Timing unless noted)	July-August Adult/Sub-Adult Bull Trout Use	³ Existing Temperatures (max 7DADM)	Habitat Conditions, Population Significance, Other Fish Uses, & Other Considerations
<p>EPA Preliminary Finding:</p> <p>13C for w. steelhead spawning dist. for WRIA from Feb 15 - July 1</p>					
WRIA 23 – Upper Chehalis					
<p>Lower WRIA boundary (RM33 - Porter Creek) to RM 65.8</p> <p>Chehalis River from Scammon Creek (river mile 65.8) to Newukum River (river mile 75.2)</p> <p>Chehalis River from Newukum River to Rock Creek (river mile 106.7)</p> <p>EPA Preliminary Finding:</p> <p>RM33 - Just above confl. w/South Fork = Non-Core</p> <p>Upstream from South Fork Confluence = Core</p> <p>Tributaries to this segment with Steelhead spawning dist = Core</p>	<p><i>Chinook, spring</i> <i>Chinook, fall</i> <i>Coho (tribs only)</i> <i>Steelhead, winter</i></p>	<p><i>Chinook, spring</i> - RM33 up - Spawning early Sept to Mid Oct - Need to confirm spawning start in lower part of this segment, unlikely to start this early</p> <p><i>Steelhead, winter</i> - Above confluence with South Fork - Portions of tributaries to this segment - Spawning mid Feb - mid June</p>		<p>RM33 @ Porter 22.3°C (2001) 23.2°C (2002) 24.1°C (2003)</p> <p>RM101.7 @ Dryad 21.7°C (2001) 23.5°C (2003)</p>	
<p>Skookumchuck River up to RM 21.4</p> <p>EPA Preliminary Finding:</p> <p>RM0 -RM21.4 =Core</p>	<p><i>Chinook, spring</i> <i>Chinook, fall</i> <i>Coho</i> <i>Steelhead, winter</i></p>	<p><i>Chinook, spring</i> -RM0 up -Spawning early Sept to Mid Oct</p> <p><i>Steelhead, winter</i> -RM0 up - Spawning mid Feb - mid June</p>			

DOE Non-Core Designation & EPA Preliminary Findings	July-August Juvenile Salmon/Steelhead rearing (¹ WDFW Dist. unless noted)	Summer Salmon/Steelhead Spawning-Emergence (¹ WDFW Dist./ ² SASI Timing unless noted)	July-August Adult/Sub-Adult Bull Trout Use	³ Existing Temperatures (max 7DADM)	Habitat Conditions, Population Significance, Other Fish Uses, & Other Considerations
<p>Hanaford Creek from mouth to east boundary of Sec. 25-T15N-R2W (river mile 4.1)</p> <p>EPA Preliminary Finding:</p> <p>Non-Core</p>	<p><i>Coho</i> (presence) <i>Steelhead, winter</i> (presence)</p>	<p>No summer spawning in this segment</p>			
<p>Newaukum River</p> <p>EPA Preliminary Finding:</p> <p>Core</p>	<p><i>Chinook, spring</i> <i>Chinook, fall</i> <i>Coho</i> <i>Steelhead, winter</i></p>	<p><i>Chinook, spring</i> -RM0 up -Spawning early Sept to Mid Oct</p> <p><i>Steelhead, winter</i> -RM0 up - Spawning mid Feb - mid June</p>			
<p>Chehalis River, South Fork, from mouth to the unnamed tributary at longitude – 123.4127 and latitude 49.179</p> <p>EPA Preliminary Finding:</p> <p>Core</p>	<p><i>Chinook, spring</i> <i>Chinook, fall</i> <i>Coho</i> <i>Steelhead, winter</i></p>	<p><i>Chinook, spring</i> -RM 0 up -Spawning early Sept to Mid Oct</p> <p><i>Steelhead, winter</i> -RM0 up - Spawning mid Feb - mid June</p>			
<p>EPA Preliminary Finding:</p> <p>13C applies to spring chinook and w. steelhead spawning dist. in WRIA from Sept 15 - July 1 (Skookumchuck, Newaukum, and Chehalis River above and including South Fork)</p>					
<p>WRIA 24 - Willipa</p>					

DOE Non-Core Designation & EPA Preliminary Findings	July-August Juvenile Salmon/Steelhead rearing (¹ WDFW Dist. unless noted)	Summer Salmon/Steelhead Spawning-Emergence (¹ WDFW Dist./ ² SASI Timing unless noted)	July-August Adult/Sub-Adult Bull Trout Use	³Existing Temperatures (max 7DADM)	Habitat Conditions, Population Significance, Other Fish Uses, & Other Considerations
<p>Entire WRIA is non-core except Naselle above RM 18.6</p> <p>EPA Preliminary Finding:</p> <p>Steelhead spawning dist = Core Waters downstream of Steelhead spawning dist = Non-Core</p>	<p><i>Chinook, fall</i> <i>Coho</i> <i>Chum, fall</i> <i>Steelhead, winter</i></p> <p>Juvenile rearing to the mouth in the North, Willapa, and Naselle and other rivers in WRIA</p>	<p><i>Steelhead, winter</i></p> <ul style="list-style-type: none"> - North, Naselle, Willapa and other creeks in WRIA 24 - Spawning mid Feb - early June (Naselle) - Spawning mid Feb - mid June (Willapa) 			
WRIA 25 Grays-Elokoman					
<p>Entire WRIA is non-core except Greys River above RM 15.8</p> <p>EPA Preliminary Finding:</p> <p>Steelhead spawning dist = Core Waters downstream of Steelhead spawning dist = Non-Core</p>	<p><i>Chinook, fall</i> <i>Coho</i> <i>Steelhead, winter</i></p> <p>Juvenile rearing in the Abernathy, Elochoman, Skamokawa, and Greys and other rivers in WRIA</p>	<p><i>Chinook, fall chinook</i></p> <ul style="list-style-type: none"> Skamokawa - RM2 up Germany Creek - RM0 up Spawning late Sept to Mid Nov <p><i>Steelhead, winter</i></p> <ul style="list-style-type: none"> - Abernathy, Elochoman, Skamokawa, Germany, and Greys and other creeks in WRIA 25 - Spawning early March - early June 			
WRIA 26 - Cowlitz					
<p>Coweeman River from mouth to Mulholland Creek (river mile 18.4)</p> <p>EPA Preliminary Finding:</p> <p>RM0 - RM5 = Non-Core RM5 & upstream = Core</p>	<p><i>Chinook, fall</i> <i>Steelhead, winter</i></p>	<p><i>Steelhead, winter</i></p> <ul style="list-style-type: none"> - RM5 up - Spawning early March - early June 			
<p>Cowlitz River from mouth to base of Riffe Lake Dam (river mile 52.0)</p> <p>EPA Preliminary Finding:</p> <p>RM0 - RM16 = Non-Core RM16 & upstream = Core</p>	<p><i>Chinook, spring (RM20-40)</i> <i>Chinook, fall (portions)</i> <i>Steelhead, winter</i></p>	<p><i>Chinook, spring</i></p> <ul style="list-style-type: none"> - RM20 - RM40 Spawning late Aug to early Oct <p><i>Steelhead, winter</i></p> <ul style="list-style-type: none"> - RM16 up - Spawning early March - early June 			

DOE Non-Core Designation & EPA Preliminary Findings	July-August Juvenile Salmon/Steelhead rearing (¹ WDFW Dist. unless noted)	Summer Salmon/Steelhead Spawning-Emergence (¹ WDFW Dist./ ² SASI Timing unless noted)	July-August Adult/Sub-Adult Bull Trout Use	³ Existing Temperatures (max 7DADM)	Habitat Conditions, Population Significance, Other Fish Uses, & Other Considerations
<p>Toutle River - up to Green River on North Fork (about RM 10 on NF)</p> <p>EPA Preliminary Finding:</p> <p>Toutle River & Tribs = Core</p>	<p><i>Coho</i> <i>Steelhead, winter</i></p>	<p><i>Steelhead, winter</i> - RM0 up - Spawning early March - early June</p>			
WRIA 27 Lewis					
<p>Kalama River below RM10.4 Lewis River below Lake Merwin East Fork Lewis River below RM24.6 [Not specified in Table 602]</p> <p>EPA Preliminary Finding:</p> <p>Kalama River RM0-2 = Non-Core RM2 upstream = Core Lewis River RM0- RM10 = Non-Core RM10 upstream = Core East Fork Lewis River RM0-6 = Non-Core RM 6 upstream = Core</p>	<p><i>Chinook, fall</i> <i>Chinook, spring (except E Lewis)</i> <i>Coho (Lewis, E Lewis, & tribs)</i> <i>Steelhead, summer (Kalama, E Lewis)</i> <i>Steelhead, winter</i></p>	<p><i>Chinook, spring</i> - Lower Kalama River, Lower Lewis River Spawning late Aug to early Oct</p> <p><i>Steelhead, winter</i> - Lower Kalama, Lower Lewis River, East Fork Lewis - Spawning early January - early June (Kalama), early March - early (Lewis)</p>			
WRIA 28 Salmon-Washougal					
<p>Entire WRIA is Non -Core except Lamas Creek above lake.</p> <p>EPA Preliminary Finding:</p> <p>Steelhead spawning dist = Core Waters downstream of Steelhead spawning dist = Non-Core</p>	<p><i>Chinook, fall (Washougal)</i> <i>Steelhead, summer (Washougal)</i> <i>Steelhead, winter</i></p>	<p><i>Steelhead, summer</i> - Washougal - Spawning early March - early June</p> <p><i>Steelhead, winter</i> - Salmon Creek and Washougal Rivers and other Creeks in WRIA - Spawning early March - early June</p>			
WRIA 29 Wind-White					

DOE Non-Core Designation & EPA Preliminary Findings	July-August Juvenile Salmon/Steelhead rearing (¹ WDFW Dist. unless noted)	Summer Salmon/Steelhead Spawning-Emergence (¹ WDFW Dist./ ² SASI Timing unless noted)	July-August Adult/Sub-Adult Bull Trout Use	³ Existing Temperatures (max 7DADM)	Habitat Conditions, Population Significance, Other Fish Uses, & Other Considerations
<p>Entire WRIA is Non-Core except Char designations in WRIA and Little White Salmon River, which drains into a lake [Note: portions of Wind River appear to have previously been AA water, but not designated core in Table 602]</p> <p>EPA Preliminary Finding:</p> <p>Wind River and White Salmon = Core</p> <p>Other Rivers draining directly into Columbia River = Non - Core</p>	<p><i>Chinook, Fall</i> <i>Chinook, Spring</i> <i>Steelhead, summer</i> <i>Steelhead, winter</i></p>	<p><i>Chinook, Fall</i> - Lower part of Wind & White Salmon - Spawning early Sept - late Sept (Wind), early - late Oct (White Salmon)</p> <p><i>Chinook, Spring</i> - Wind River - Spawning early Aug- mid Sept</p> <p><i>Steelhead, summer</i> - Wind River & lower White Salmon - Spawning early March - early June</p> <p><i>Steelhead, winter</i> - Wind River & lower White Salmon - Spawning early March - early June</p> <p>Note: some Steelhead spawning in lower part of several small creeks draining into the Columbia River</p>			
WRIA 30 Klickitat					
<p>Klickitat River below RM19.8, including the Little Klickitat River plus several small streams draining into Columbia River</p> <p>EPA Preliminary Finding:</p> <p>Klickitat River RM0-19.8 = Core All tributaries to this segment = Non-Core Little Klickitat = Core Small stream draining into Columbia River = Non - Core</p>	<p><i>Chinook, Fall</i> <i>Chinook, Spring</i> <i>Steelhead, summer</i> <i>Steelhead, winter</i></p>	<p><i>Chinook, Fall (Tule)</i> - RM0 up - Spawning early Sept - late Sept</p> <p><i>Chinook, Spring</i> - RM16 up - Spawning early Aug - early Sept</p> <p><i>Steelhead, summer</i> - RM0 up - Spawning early March - early June</p> <p><i>Steelhead, winter</i> - RM0 up - Spawning early March - early June</p>			
WRIA 31 Rock-Glade					

DOE Non-Core Designation & EPA Preliminary Findings	July-August Juvenile Salmon/Steelhead rearing (¹ WDFW Dist. unless noted)	Summer Salmon/Steelhead Spawning-Emergence (¹ WDFW Dist./ ² SASI Timing unless noted)	July-August Adult/Sub-Adult Bull Trout Use	³ Existing Temperatures (max 7DADM)	Habitat Conditions, Population Significance, Other Fish Uses, & Other Considerations
<p>Entire WRIA is Non-Core</p> <p>EPA Preliminary Finding:</p> <p>All Non-Core, except Rock Creek and Tribs above RM2</p>	<p><i>Steelhead, summer</i></p>	<p><i>Steelhead, summer</i></p> <p>- RM2 - RM6</p> <p>- Spawning early March - early June</p>			
WRIA 32 Walla Walla					
<p>Mill Creek from mouth to 13th Street Bridge in Walla Walla (river mile 6.4)</p> <p>Walla Wall River from mouth to Lowden (Dry Creek at river mile 27.2)</p> <p>(Migration/Rearing Only)</p> <p>EPA Preliminary Finding:</p> <p>Mill Creek = Non-Core</p> <p>Walla Walla = Migration/Rearing Only</p>	<p><i>Steelhead, summer</i> (Mill Creek)</p>	<p>No spawning in these segments, except summer Steelhead in Mill Creek (early Feb - late May)</p>			
<p>All other river Non-Core, except for Char designations.</p> <p>EPA Preliminary Finding:</p> <p>Spring Chinook dist on Touchet = Core</p> <p>Rest of WAC Non-Core = Non-Core</p>	<p><i>Chinook, Spring</i> (Touchet)</p> <p><i>Steelhead, summer</i> (Touchet)</p>	<p><i>Chinook, Spring</i></p> <p>- Upper Touchet</p> <p>- Timing not specified</p>			
WRIA 33 - Lower Snake					
<p>Entire WRIA Non-Core</p> <p>EPA Preliminary Finding: All WRIA Non-Core</p>	<p>No anadromous fish, except for the Snake River - migration for Chinook, Steelhead, Sockeye</p>				
WRIA 34 - Palouse					

DOE Non-Core Designation & EPA Preliminary Findings	July-August Juvenile Salmon/Steelhead rearing (¹ WDFW Dist. unless noted)	Summer Salmon/Steelhead Spawning-Emergence (¹ WDFW Dist./ ² SASI Timing unless noted)	July-August Adult/Sub-Adult Bull Trout Use	³Existing Temperatures (max 7DADM)	Habitat Conditions, Population Significance, Other Fish Uses, & Other Considerations
<p>Palouse River from mouth to south fork (Colfax, river mile 89.6) (Migration/Rearing Only)</p> <p>EPA Preliminary Finding: Migration/Rearing Only, except Palouse River below falls = Non-Core</p>		<p><i>Chinook, Fall</i> - Below falls/timing not specified</p> <p><i>Chinook, Summer</i> - Below falls/timing not specified</p> <p><i>Steelhead, Summer</i> -Below falls/ timing not specified</p>			
<p>Rest of WRIA Non-Core, except tributaries to Rock Lake & South Cow Creek, which are Core</p> <p>EPA Preliminary Finding: WAC Non-Core = Non-Core</p>	<p>No anadromous fish in these WAC non-core waters</p>				
WRIA 35 – Middle Snake					
<p>Entire WRIA Non-Core, including Snake River from mouth to Washington-Idaho-Oregon border (river mile 176.1), except Char designations in WRIA and streams in Umatilla National Forest (including Tucannon River above RM38.1)</p> <p>EPA Preliminary Finding: Non-Core for all WAC Non-Core waters, except Core for Tucannon from RM20 - 38.1</p>	<p><i>Chinook, Spring</i> (Tucannon) <i>Steelhead, Summer</i> (Tucannon)</p> <p>Snake River - migration for Chinook, Steelhead, Sockeye</p>	<p><i>Chinook, Spring</i> - RM20 up - Spawning from late Aug - late Sept</p>			
WRIA 36 – Esquatzel Coulee					
<p>Entire WRIA is Non-Core, except several stream into lakes, which are Core</p> <p>EPA Preliminary Finding: No change to WAC designations</p>	<p>No anadromous fish, except for Columbia River</p>				
WRIA 37 - Lower Yakima					

DOE Non-Core Designation & EPA Preliminary Findings	July-August Juvenile Salmon/Steelhead rearing (¹WDFW Dist. unless noted)	Summer Salmon/Steelhead Spawning-Emergence (¹WDFW Dist./ ²SASI Timing unless noted)	July-August Adult/Sub-Adult Bull Trout Use	³Existing Temperatures (max 7DADM)	Habitat Conditions, Population Significance, Other Fish Uses, & Other Considerations
<p>Entire WRIA is Non-Core, except for Char designations</p> <p>EPA Preliminary Finding: Non-Core for WAC Non-Core, except Core for Steelhead spawning dist. (not including Mule Dry Creek, Marion Drain, Corral Creek)</p>	<p><i>Chinook, fall (Yakima R)</i> <i>Chinook, spring (Yakima R)</i></p>	<p><i>Steelhead, summer</i> - Multiple tributaries - Spawning early March - early June</p>			
WRIA 38 - Naches					
<p>Non-Core for all waters outside of National Forest including Naches from mouth to RM 35.7 (except all Tieton is Core)</p> <p>EPA Preliminary Finding: Core for Naches just above conf. w/Tieton River up to RM 35.7, rest of the above waters in WRIA = Non-Core</p>	<p><i>Chinook, spring</i> <i>Steelhead, summer</i></p>	<p><i>Chinook, spring</i> - Naches River just above conf. w/Tieton River - Spawning early Sept - late Sept - American river (spawning late July- late Aug)</p> <p><i>Steelhead, summer</i> - Naches River (all) - Spawning early March - early June</p>			
WRIA 39 - Upper Yakima					
<p>Non-Core for all waters outside of National Forest, including Yakima River from mouth to Cle Elum River (river mile 185.6)</p> <p>EPA Preliminary Finding: Core for Yakima and Teanaway Rivers and Swauk Creek, Non-Core for rest of WAC Non-Core designations</p>	<p><i>Chinook, spring</i> <i>Steelhead, summer</i></p>	<p><i>Chinook, spring</i> - All Yakima River in this WRIA and Teanaway River - Spawning mid Sept - late Sept</p> <p><i>Steelhead, summer</i> - All Yamima, Teanaway, and Swauk Creek - Spawning early March - early June</p>			
WRIA 40 -Alkaki/Squilchuck					
<p>EPA Preliminary Finding: No Change to WAC designations</p>	<p>No anadromous fish, except for Columbia River</p>				

DOE Non-Core Designation & EPA Preliminary Findings	July-August Juvenile Salmon/Steelhead rearing (¹ WDFW Dist. unless noted)	Summer Salmon/Steelhead Spawning-Emergence (¹ WDFW Dist./ ² SASI Timing unless noted)	July-August Adult/Sub-Adult Bull Trout Use	³ Existing Temperatures (max 7DADM)	Habitat Conditions, Population Significance, Other Fish Uses, & Other Considerations
WRIA 41 - Lower Crab					
EPA Preliminary Finding: No Change to WAC designations.	No anadromous fish in WRIA, except lower Crab Creek and Sand Hollow, except for Columbia				
WRIA 42 - Grand Coulee					
EPA Preliminary Finding: No Change to WAC designations.	No anadromous fish				
WRIA 43 – Upper Crab-Wilson					
EPA Preliminary Finding: No Change to WAC designations.	No anadromous fish				
WRIA 44 -Moses Coulee					
EPA Preliminary Finding: No Change to WAC designations.	No anadromous fish				
WRIA 45 -Wenatchee					
<p>Non-Core for all waters outside of National Forest, including Wenatchee River from RM27.1 to mouth</p> <p>EPA Preliminary Finding: Core for Wenatchee River from RM27.1 to confl. with Chumstick Creek, including Icicle Creek and part of Peshastin Creek, Non-Core for rest of WAC Non-Core designations</p>	<p><i>Chinook, Spring</i> <i>Chinook, Summer</i> <i>Sockeye</i> <i>Steelhead, summer</i></p>	<p><i>Chinook, Spring</i> - Icicle Creek - Spawning early Aug - mid Sept</p> <p><i>Chinook, Summer</i> - Wenatchee R. below Leavenworth - Spawning late Sept - late Oct</p> <p><i>Sockeye</i> - Icicle Creek - Spawning mid Sept - late Oct</p> <p><i>Steelhead, summer</i> - Wenatchee R. a few miles below Leavenworth & Chumstick Creek & Peshastin Creek - Spawning early March - mid July</p>	<p><i>adult and sub-adult</i> presence/migration & juvenile rearing -timing not provided [WDFW Dist.] in some rivers in these WRIA's</p>		

DOE Non-Core Designation & EPA Preliminary Findings	July-August Juvenile Salmon/Steelhead rearing (¹ WDFW Dist. unless noted)	Summer Salmon/Steelhead Spawning-Emergence (¹ WDFW Dist./ ² SASI Timing unless noted)	July-August Adult/Sub-Adult Bull Trout Use	³ Existing Temperatures (max 7DADM)	Habitat Conditions, Population Significance, Other Fish Uses, & Other Considerations
WRIA 46 -Eniat					
<p>Non-Core for all waters outside of National Forest, including Eniat River from RM20.5 to mouth</p> <p>EPA Preliminary Finding: Core Eniat River from RM20.5 to confl. with Mad river (including Mad river), Non-Core for rest of WAC Non-Core designations</p>	<p><i>Chinook, Spring</i> <i>Steelhead, summer</i></p>	<p><i>Chinook, Spring</i> - Mad river - Spawning early Aug - mid Sept</p> <p><i>Steelhead, summer</i> - RM20.5 down to about RM10 - Spawning early March - early June</p>	<p><i>adult and sub-adult</i> presence/migration -timing not provided [WDFW Dist.]</p>		
WRIA 47 - Chelan					
<p>Several streams draining directly into Columbia River and outlet of lake Chelan</p> <p>EPA Preliminary Finding: No Change to WAC designations.</p>	<p><i>Chinook, Spring</i> <i>Chinook, Summer</i> <i>Sockeye</i> (<i>all in lower part of Lake Chelan outlet</i>)</p>	<p><i>Steelhead, summer</i> - In lower part of Lake Chelan outlet - No timing info</p>			
WRIA 48 -Methow					
<p>Methow River from mouth to Chewuch River (river mile 50.1)</p> <p>EPA Preliminary Finding: Core for Methow River from RM50.1 to confl. with Twisp River, Non-Core for rest of WAC Non-Core designations</p>	<p><i>Chinook, Spring</i> <i>Chinook, Summer</i> <i>Steelhead, summer</i></p>	<p><i>Chinook, Spring</i> - RM50.1 down to confl. with Twisp River - Spawning early Aug - mid Sept</p> <p><i>Chinook, Summer</i> - Methow River to mouth - Spawning late Sept - early Nov</p> <p><i>Sockeye</i> - Above and below Twisp River confl. - Timing unknown</p> <p><i>Steelhead, summer</i> - Methow River down to mouth - Spawning early March - mid July</p>	<p><i>adult and sub-adult</i> presence/migration -timing not provided [WDFW Dist.]</p>		
WRIA 49 - Okanogan					

DOE Non-Core Designation & EPA Preliminary Findings	July-August Juvenile Salmon/Steelhead rearing (¹ WDFW Dist. unless noted)	Summer Salmon/Steelhead Spawning-Emergence (¹ WDFW Dist./ ² SASI Timing unless noted)	July-August Adult/Sub-Adult Bull Trout Use	³ Existing Temperatures (max 7DADM)	Habitat Conditions, Population Significance, Other Fish Uses, & Other Considerations
<p>All WRIA is Non-Core, including the Okanogan River, except for streams draining into lakes</p> <p>EPA Preliminary Finding: No Change to WAC designations.</p>	<p><i>Chinook, Summer</i></p>	<p><i>Chinook, Summer</i> - Okanogan River - Spawning early Oct - mid Nov</p> <p><i>Sockeye</i> - Just below Lake Okanogan - Spawning early Oct - late Oct</p>			
<p>WRIA 50 Foster</p>					
<p>All WRIA is Non-Core</p> <p>EPA Preliminary Finding: No Change to WAC designations.</p>		<p><i>Chinook, Summer</i> - Columbia River and Foster Creek - Timing unknown</p>			
<p>WRIs 51 – 62</p>					
<p>EPA Preliminary Finding: No Change to WAC designations.</p>	<p>No anadromous fish</p>		<p><i>adult and sub-adult</i> presence/migration -timing not provided [WDFW Dist.] in some rivers in these WRIA's</p>		