

TABLE 1A-10. Measured Water Temperature Ranges¹ (°F) in the Guadalupe River at the Alamos Drop Structure and Associated Water Temperature Needs for Important Chinook Life Stages

This table shows the range of measured water temperatures in the Guadalupe River during the prespawning, spawning, and rearing periods for chinook salmon. It also indicates the percentage of time that water temperatures are optimal, suboptimal, and lethal during these periods.

PRESPAWNING (SEPTEMBER - DECEMBER)²

Percentages	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
0%									66.9	60.5	63.6	ND
10%									69.4	61.7	64.3	ND
20%									70.5	63.6	64.3	ND
30%									71.2	64.3	64.3	ND
40%									71.8	64.9	64.3	ND
50%									72.4	65.5	64.9	ND
60%									72.4	66.1	64.9	ND
70%									73.0	67.6	64.9	ND
80%									78.3	68.5	65.5	ND
90%									80.3	69.4	65.5	ND
100%									82.2	71.8	66.1	ND

SPAWNING (OCTOBER - JANUARY)²

Percentages	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
0%	49.8									60.5	63.6	ND
10%	51.1									61.7	64.3	ND
20%	51.7									63.6	64.3	ND
30%	51.8									64.3	64.3	ND
40%	52.3									64.9	64.3	ND
50%	53.0									65.5	64.9	ND
60%	53.0									66.1	64.9	ND
70%	53.0									67.6	64.9	ND
80%	53.6									68.5	65.5	ND
90%	53.6									69.4	65.5	ND
100%	54.9									71.8	66.1	ND

REARING (FEBRUARY - JUNE)²

Percentages	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
0%		50.4	51.7	46.0	42.7	49.7						
10%		52.3	54.3	57.4	57.2	59.2						
20%		53.6	54.9	58.7	61.2	66.1						
30%		54.9	55.9	60.0	65.0	71.3						
40%		55.8	56.8	60.6	66.9	72.6						
50%		56.8	57.4	61.9	68.2	73.2						
60%		57.4	58.1	63.1	69.4	73.8						
70%		58.1	58.7	64.4	70.7	74.5						
80%		58.7	60.0	66.3	73.2	75.1						
90%		59.3	60.6	68.9	77.5	76.4						
100%		61.9	65.0	76.4	97.6	86.9						

Notes: Temperature data collected by SCVWD during 1996 and 1997.

¹ Percentage of time that temperature is less than stated value. Data collected at 1-hour intervals.

² Lifestages may be present during months where data are not shown, however, focus of analysis is on those months when temperatures are typically limiting.

Legend:

#°F	Suboptimal Water Temperatures	#°F	Lethal Water Temperatures
#°F	Optimal Water Temperatures	ND	No Data

TABLE 1A-11. Measured Water Temperature Ranges¹ (°F) in the Guadalupe River at Branham Lane and Temperature Thresholds for Important Chinook Salmon Life Stages

This table shows the range of measured water temperatures in the Guadalupe River during the prespawning, spawning, and rearing periods for chinook salmon. It also indicates the percentage of time that water temperatures are optimal, suboptimal, and lethal during these periods.

PRESPAWNING (SEPTEMBER - DECEMBER)²

Percentages	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
0%									67.4	59.2	59.2	ND
10%									69.3	62.4	61.7	ND
20%									70.5	63.6	62.4	ND
30%									71.2	64.3	63.0	ND
40%									71.8	64.9	63.6	ND
50%									72.4	65.5	64.3	ND
60%									73.0	66.1	64.9	ND
70%									73.8	66.8	65.5	ND
80%									75.1	68.0	66.1	ND
90%									77.1	69.3	66.8	ND
100%									83.5	73.7	68.7	ND

SPAWNING (OCTOBER - JANUARY)²

Percentages	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
0%	49.8									59.2	59.2	ND
10%	51.1									62.4	61.7	ND
20%	51.7									63.6	62.4	ND
30%	52.4									64.3	63.0	ND
40%	53.0									64.9	63.6	ND
50%	53.0									65.5	64.3	ND
60%	53.6									66.1	64.9	ND
70%	53.6									66.8	65.5	ND
80%	54.3									68.0	66.1	ND
90%	54.9									69.3	66.8	ND
100%	55.6									73.7	68.7	ND

REARING (FEBRUARY - JUNE)²

Percentages	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
0%		51.1	52.4	54.3	56.2	64.4						
10%		52.4	54.9	57.5	63.8	66.9						
20%		53.6	55.6	59.4	65.0	68.0						
30%		54.9	56.2	60.0	66.8	68.8						
40%		56.2	56.8	61.3	68.2	69.9						
50%		56.8	57.5	62.5	69.4	71.3						
60%		57.5	58.1	63.8	71.2	73.0						
70%		58.1	59.4	65.0	72.6	75.0						
80%		58.7	60.0	66.9	74.3	76.9						
90%		60.0	61.3	70.1	76.4	79.0						
100%		63.1	66.3	77.1	82.0	84.2						

Notes: Temperature data collected by SCVWD during 1996 and 1997.

¹ Percentage of time that temperature is less than stated value. Data collected at 1-hour intervals.

² Lifestages may be present during months where data are not shown, however, focus of analysis is on those months when temperatures are typically limiting.

Legend:

#°F	Suboptimal Water Temperatures	#°F	Lethal Water Temperatures
#°F	Optimal Water Temperatures	ND	No Data

TABLE 1A-12. Measured Water Temperature Ranges¹ (°F) in the Guadalupe River at Reach 10B (Stream Gage 23B) and Temperature Thresholds for Important Chinook Salmon Life Stages

This table shows the range of measured water temperatures in the Guadalupe River during the prespawning, spawning, and rearing periods for chinook salmon. It also indicates the percentage of time that water temperatures are optimal, suboptimal, and lethal during these periods.

PRESPAWNING (SEPTEMBER - DECEMBER)²

Percentages	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
0%									65.1	54.9	51.1	49.1
10%									67.6	59.3	54.9	51.1
20%									68.8	60.6	56.2	51.7
30%									69.5	61.9	56.8	52.4
40%									70.1	64.4	57.5	53.0
50%									71.3	65.7	58.1	54.3
60%									72.0	66.3	58.7	55.6
70%									72.6	67.6	59.4	56.8
80%									73.2	69.5	60.0	57.5
90%									74.5	70.7	60.6	58.1
100%									80.3	74.5	61.3	61.3

SPAWNING (OCTOBER - JANUARY)²

Percentages	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
0%	49.8									54.9	51.1	49.1
10%	51.7									59.3	54.9	51.1
20%	52.4									60.6	56.2	51.7
30%	53.0									61.9	56.8	52.4
40%	53.6									64.4	57.5	53.0
50%	53.6									65.7	58.1	54.3
60%	54.3									66.3	58.7	55.6
70%	54.9									67.6	59.4	56.8
80%	55.6									69.5	60.0	57.5
90%	57.5									70.7	60.6	58.1
100%	60.0									74.5	61.3	61.3

REARING (FEBRUARY - JUNE)²

Percentages	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
0%		52.4	53.0	54.9	56.8	66.3						
10%		54.3	55.6	59.4	65.1	70.1						
20%		55.6	56.8	61.3	66.9	70.7						
30%		55.6	57.5	62.5	68.8	71.3						
40%		56.2	58.1	63.8	70.1	72.0						
50%		56.2	59.4	65.1	70.7	72.6						
60%		56.8	60.6	66.3	72.0	73.2						
70%		57.5	61.9	68.2	73.2	73.9						
80%		58.1	65.1	69.5	74.5	75.2						
90%		59.4	66.3	70.7	76.4	76.1						
100%		63.2	70.1	74.5	81.6	79.0						

Notes: Temperature data collected by SCVWD during 1996 and 1997.

¹ Percentage of time that temperature is less than stated value. Data collected at 1-hour intervals.

² Lifestages may be present during months where data are not shown, however, focus of analysis is on those months when temperatures are typically limiting.

Legend:

#°F	Suboptimal Water Temperatures	#°F	Lethal Water Temperatures
#°F	Optimal Water Temperatures	ND	No Data

TABLE 1A-13. Measured Water Temperature Ranges¹ (°F) in the Guadalupe River just Upstream of the Guadalupe - Los Gatos Confluence and Temperature Thresholds for Important Chinook Salmon Life Stages

This table shows the range of measured water temperatures in the Guadalupe River during the prespawning, spawning, and rearing periods for chinook salmon. It also indicates the percentage of time that water temperatures are optimal, suboptimal, and lethal during these periods.

PRESPAWNING (SEPTEMBER - DECEMBER)²

Percentages	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
0%									65.5	59.2	56.1	ND
10%									66.8	60.5	58.0	ND
20%									67.4	61.1	59.2	ND
30%									67.4	61.8	59.9	ND
40%									68.0	62.4	60.5	ND
50%									68.0	63.0	61.1	ND
60%									68.7	63.6	62.4	ND
70%									68.7	64.3	63.0	ND
80%									69.3	64.9	63.6	ND
90%									69.3	67.4	63.6	ND
100%									71.2	68.7	65.5	ND

SPAWNING (OCTOBER - JANUARY)²

Percentages	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
0%	ND									59.2	56.1	ND
10%	ND									60.5	58.0	ND
20%	ND									61.1	59.2	ND
30%	ND									61.8	59.9	ND
40%	ND									62.4	60.5	ND
50%	ND									63.0	61.1	ND
60%	ND									63.6	62.4	ND
70%	ND									64.3	63.0	ND
80%	ND									64.9	63.6	ND
90%	ND									67.4	63.6	ND
100%	ND									68.7	65.5	ND

REARING (FEBRUARY - JUNE)²

Percentages	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
0%		ND	ND	63.6	62.4	65.5						
10%		ND	ND	63.8	64.9	66.8						
20%		ND	ND	64.3	66.2	67.4						
30%		ND	ND	64.8	66.8	68.0						
40%		ND	ND	64.9	68.0	68.0						
50%		ND	ND	65.2	68.0	68.7						
60%		ND	ND	65.5	69.3	68.7						
70%		ND	ND	65.5	69.9	69.3						
80%		ND	ND	65.5	70.5	69.9						
90%		ND	ND	65.5	71.8	70.5						
100%		ND	ND	66.2	74.3	71.8						

Notes: Temperature data collected by SCVWD during 1996 and 1997.

¹ Percentage of time that temperature is less than stated value. Data collected at 1-hour intervals.

² Lifestages may be present during months where data are not shown, however, focus of analysis is on those months when temperatures are typically limiting.

Legend:

#°F	Suboptimal Water Temperatures	#°F	Lethal Water Temperatures
#°F	Optimal Water Temperatures	ND	No Data

TABLE 1A-14. Measured Water Temperature Ranges¹ (°F) in the Guadalupe River at I-880 and Temperature Thresholds for Important Chinook Salmon Life Stages

This table shows the range of measured water temperatures in the Guadalupe River during the prespawning, spawning, and rearing periods for chinook salmon. It also indicates the percentage of time that water temperatures are optimal, suboptimal, and lethal during these periods.

PRESPAWNING (SEPTEMBER - DECEMBER)²

Percentages	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
0%									63.0	56.7	54.2	49.7
10%									65.0	59.3	56.7	52.9
20%									66.2	61.2	57.4	54.8
30%									66.8	63.0	58.0	55.5
40%									66.9	63.7	58.6	56.7
50%									67.5	64.3	59.3	57.4
60%									68.1	64.9	59.9	58.0
70%									68.7	65.6	60.5	58.6
80%									69.3	66.8	61.8	59.3
90%									70.0	67.5	63.7	60.5
100%									72.5	71.8	66.8	69.3

SPAWNING (OCTOBER - JANUARY)²

Percentages	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
0%	48.4									56.7	54.2	49.7
10%	51.6									59.3	56.7	52.9
20%	52.3									61.2	57.4	54.8
30%	52.9									63.0	58.0	55.5
40%	52.9									63.7	58.6	56.7
50%	53.6									64.3	59.3	57.4
60%	53.6									64.9	59.9	58.0
70%	54.2									65.6	60.5	58.6
80%	54.2									66.8	61.8	59.3
90%	56.1									67.5	63.7	60.5
100%	59.9									71.8	66.8	69.3

REARING (FEBRUARY - JUNE)²

Percentages	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
0%		52.9	ND	66.2	59.9	64.3						
10%		54.2	ND	67.8	63.7	65.6						
20%		55.5	ND	68.1	64.9	66.2						
30%		55.5	ND	69.0	65.6	66.8						
40%		56.1	ND	69.3	66.2	67.5						
50%		56.7	ND	69.6	67.5	68.1						
60%		56.7	ND	70.6	68.1	68.7						
70%		56.7	ND	70.9	68.7	69.3						
80%		57.4	ND	71.8	69.3	70.6						
90%		58.0	ND	72.1	70.8	71.2						
100%		60.5	ND	72.5	75.0	75.0						

Note:

¹ Percentage of time that temperature is less than stated value. Data collected at 1-hour intervals.

² Lifestages may be present during months where data are not shown, however, focus of analysis is on those months when temperatures are typically limiting.

Legend:

#°F Suboptimal Water Temperatures
 #°F Optimal Water Temperatures

#°F Lethal Water Temperatures
 ND No Data

Available Data: Sep 15 - Oct 12, 1995
 Apr 30 - Dec 31, 1996
 Jan 1 - Feb 24, May 5 - Nov 18, 199

TABLE 1A-15. Measured Water Temperature Ranges¹ (°F) in the Guadalupe River at Montague Expressway and Temperature Thresholds for Important Chinook Salmon Life Stages

This table shows the range of measured water temperatures in the Guadalupe River during the prespawning, spawning, and rearing periods for chinook salmon. It also indicates the percentage of time that water temperatures are optimal, suboptimal, and lethal during these periods.

PRESPAWNING (SEPTEMBER - DECEMBER)²

Percentages	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
0%									64.4	59.4	59.4	58.1
10%									65.7	60.6	61.9	58.7
20%									65.7	61.9	62.5	60.0
30%									66.9	63.1	63.1	60.6
40%									67.6	64.4	63.1	61.3
50%									68.2	65.7	63.8	61.9
60%									68.8	66.3	63.8	62.5
70%									70.1	66.9	64.4	63.1
80%									71.3	68.6	65.0	63.8
90%									72.6	70.7	65.0	63.8
100%									75.1	74.5	65.7	65.0

SPAWNING (OCTOBER - JANUARY)²

Percentages	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
0%										59.4	59.4	58.1
10%	51.7									60.6	61.9	58.7
20%	54.3									61.9	62.5	60.0
30%	54.9									63.1	63.1	60.6
40%	55.6									64.4	63.1	61.3
50%	55.6									65.7	63.8	61.9
60%	56.2									66.3	63.8	62.5
70%	56.8									66.9	64.4	63.1
80%	57.5									68.6	65.0	63.8
90%	58.1									70.7	65.0	63.8
100%	61.9									74.5	65.7	65.0

REARING (FEBRUARY - JUNE)²

Percentages	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
0%		51.1	51.7	49.1	53.0	63.8						
10%		53.8	54.9	56.2	62.5	65.7						
20%		56.8	56.2	58.1	64.4	66.9						
30%		58.1	56.8	59.4	66.3	68.2						
40%		58.7	57.5	60.0	68.2	69.4						
50%		58.7	58.1	61.3	69.4	70.1						
60%		59.4	58.7	62.5	70.7	71.3						
70%		60.0	60.0	63.8	71.9	72.6						
80%		60.6	60.6	65.7	73.2	74.5						
90%		61.9	61.9	68.2	75.8	75.1						
100%		65.0	65.0	76.4	81.6	79.6						

Notes: Temperature data collected by SCVWD during 1996 and 1997.

¹ Percentage of time that temperature is less than stated value. Data collected at 1-hour intervals.

² Lifestages may be present during months where data are not shown, however, focus of analysis is on those months when temperatures are typically limiting.

Legend:

#°F	Suboptimal Water Temperatures	#°F	Lethal Water Temperatures
#°F	Optimal Water Temperatures	ND	No Data