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Sonoma County Multijurisdictional Hazard Mitigation Plan Update 2021

## **Appendix E. Peak Riverine Discharges in the Planning Area**

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## E. PEAK RIVERINE DISCHARGES IN THE PLANNING AREA

Source/Location	Discharge (cubic feet/second)			
	10 Percent Annual Chance	2 Percent Annual Chance	1 Percent Annual Chance	0.2 Percent Annual Chance
<b>Adobe Creek</b>				
Above Petaluma River	1,410	2,033	2,226	2,417
Upstream of Ely Road	1,383	2,084	2,364	2,993
Upstream of confluence of Adobe Creek	*	*	*	*
Diversion Channel	1,084	1,290	1,342	1,372
<b>Airport Creek</b>				
Upstream of confluence of Windsor Creek	943	1,262	1,379	1,678
Upstream of confluence of Redwood Creek	425	562	617	745
<b>Arroyo Seco</b>				
At Cross Section B	1,250	1,910	2,140	2,660
At Cross Section W	725	1,070	1,200	1,470
<b>Austin Creek</b>				
Upstream of confluence of Russian River	14,900	22,100	24,600	30,400
Upstream of confluence of East Austin Creek	8,500	12,400	13,500	16,600
<b>Bloomfield Creek</b>				
Upstream of confluence of Estero Americano	1,000	1,300	1,444	1,720
<b>Cameron Creek</b>				
Upstream of confluence of Fulton Creek	266	345	377	460
<b>Capri Creek</b>				
At Southern Pacific Railroad	247	303	345	393
At Maria Drive	324	466	546	685
At Sonoma Mountain	276	410	463	583
<b>Champlin Creek</b>				
At Cross Section B	325	520	585	725
At Cross Section J	195	315	350	435
<b>Cloverdale Creek</b>				
At confluence of Russian River	*	*	835	*
<b>Colgan Creek</b>				
At Mouth	1,220	1,780	2,019	2,504
At Stony Point Road	1,011	1,340	1,444	1,931
At Bellevue Avenue	777	1,017	1,102	1,312

Source/Location	Discharge (cubic feet/second)			
	10 Percent Annual Chance	2 Percent Annual Chance	1 Percent Annual Chance	0.2 Percent Annual Chance
At Hearn Avenue	673	867	908	1,003
At Highway 101	558	787	787	787
At Petaluma Hill Road	157	252	304	452
<b>Corona Creek</b>				
Downstream of confluence with Capri Creek	576	736	765	908
At Highway 101	525	592	610	635
At Ely Road	462	662	727	825
<b>Cotati Creek</b>				
Upstream of confluence of Laguna de Santa Rosa	210	360	405	*
Upstream of Hillview Drive	210	360	440	610
Upstream of Water Avenue	110	180	220	310
<b>Dry Creek</b>				
Upstream of confluence with Russian River	12,500	18,000	21,000	25,000
Upstream of confluence of Mill Creek	8,700	13,000	15,000	18,000
Upstream of confluence of Pena Creek	6,200	6,500	6,900	8,800
Upstream of confluence of Dutcher Creek (Warm Springs Dam Outflow)	6,000	6,000	6,000	7,400
<b>Dutch Bill Creek</b>				
Upstream of confluence of Russian River	2,100	3,400	4,200	5,900
Upstream of confluence of Tyrone Creek	1,900	3,200	3,900	5,600
Downstream of confluence of Duvoul Creek	1,500	2,500	3,000	4,400
Upstream of confluence of Duvoul Creek	1,250	2,080	2,500	3,670
<b>East Austin Creek</b>				
Upstream of confluence with Austin Creek	7,400	11,000	12,300	15,300
<b>East Washington Creek</b>				
Above Washington Creek	515	635	671	692
At Ely Road	479	599	636	710
<b>East Windsor Creek</b>				
Upstream of confluence with Windsor Creek	929	1,223	1,339	1,616
At Highway 101	669	879	963	1,173
At Lakewood Drive	218	286	313	377
<b>Fife Creek</b>				
Upstream of confluence with Russian River	1,600	2,400	2,800	3,900
Downstream of confluence of Sweetwater Creek	1,400	2,100	2,400	3,400
Upstream of confluence of Sweetwater Creek	700	1,100	1,300	1,800
<b>Fowler Creek</b>				
At Cross Section C	9,590	11,200	11,450	12,210
At Cross Section J	2,340	5,800	6,570	10,070
At Cross Section O	2,340	4,660	5,420	8,920
At Cross Section R	2,340	3,880	4,160	6,490

Source/Location	Discharge (cubic feet/second)				
	10 Percent Annual Chance	2 Percent Annual Chance	1 Percent Annual Chance	0.2 Percent Annual Chance	
At Cross Section AB	1,500		2,400	2,580	3,310
<b>Fryer Creek</b>					
At Leveroni Road	*		*	846	*
At confluence of West Fork Fryer Creek	*		*	818	*
At confluence of East Fork Fryer Creek	*		*	407	*
At Andrieux Street	*		*	395	*
North of Andrieux Street	*		*	380	*
North of Napa Street	*		*	360	*
North of Church Street	*		*	350	*
North of Spain Street	*		*	340	*
West of Fifth Street West	*		*	130	*
North of San Joaquin Drive	*		*	110	*
<b>Fulton Creek</b>					
Upstream of confluence with Mark West Creek	592		800	892	1,060
<b>Gibson Creek</b>					
Upstream of confluence with Marin Creek	185		240	265	322
<b>Hulbert Creek</b>					
Upstream of confluence with Russian River	3,300		4,420	4,860	5,830
Downstream of confluence of Mission Creek	2,910		3,890	4,270	5,120
Upstream of confluence of Mission Creek	2,170		2,910	3,200	3,840
<b>Hulbert Creek Tributary</b>					
Upstream of confluence with Hulbert Creek	650		900	1,010	1,240
<b>Kelly Creek</b>					
Above Thompson Creek	210		325	380	520
<b>Kizer Creek</b>					
Upstream of confluence with Petaluma Creek	322		420	462	555
At Middle Two Rock Road	170		220	245	290
<b>Laguna de Santa Rosa</b>					
Upstream of confluence with Mark West Creek	21,100		30,300	35,100	44,900
Downstream of confluence of Santa Rosa Flood Control Channel	16,800		23,900	28,000	35,700
Upstream of confluence of Santa Rosa Flood Control Channel	14,000		20,100	23,300	30,800
Upstream of confluence of Irwin Creek	13,200		19,100	22,000	29,200
Upstream of confluence of Gravenstein Creek	12,300		18,000	20,500	27,200
Upstream of confluence of Pleasant Hill Creek	11,600		16,900	19,300	25,600
Upstream of confluence of Roseland Creek	10,800		15,800	18,000	23,900
Upstream of confluence of Blucher Creek	9,570		14,000	15,950	21,200
Upstream of confluence of Colgan Creek	7,710		11,200	12,850	17,100
At Stony Point Road	7,170		10,400	11,950	15,900
Downstream of confluence of Hinebaugh Creek	5,550		7,900	9,250	12,000
Upstream of confluence of Hinebaugh Creek	2,280		3,250	3,800	5,000

Source/Location	Discharge (cubic feet/second)				
	10 Percent Annual Chance	2 Percent Annual Chance	1 Percent Annual Chance	0.2 Percent Annual Chance	
Upstream of confluence with Copeland Creek	977		1,410	1,630	2,120
At U.S. Highway 101	720		1,250	1,500	2,100
Upstream of confluence of Cotati Creek	320		540	660	930
<b>Liberty Creek</b>					
Upstream of confluence with Marin Creek	490		640	710	820
At Pepper Road	180		240	260	320
<b>Lichau Creek</b>					
Upstream of confluence with Willow Brook	1,738		2,310	2,543	3,140
Upstream of confluence of Penngrove Creek	1,480		1,970	2,160	2,700
Upstream of confluence of Meacham Creek	1,280		1,700	1,870	2,300
Upstream of confluence of Highlands Creek	1,030		1,390	1,510	1,890
<b>Lynch Creek</b>					
At Highway 101	902		1,269	1,323	1,440
At Sonoma Mountain	890		1,643	1,994	2,739
<b>Marin Creek</b>					
Upstream of confluence with Petaluma River	1,829		2,400	2,659	3,200
Upstream of confluence of Wiggins Creek	1,040		1,360	1,510	1,815
Upstream of confluence of Wilson Creek	684		906	988	1,209
Upstream of confluence of Gibson Creek	310		410	450	548
<b>Mark West Creek</b>					
Upstream of confluence with Russian River	32,885		46,481	52,700	68,563
Upstream of confluence of Windsor Creek	29,602		42,248	47,900	62,318
Upstream of confluence of Laguna de Santa Rosa	8,172		11,000	12,085	15,000
Downstream of confluence of Wikiup Creek	8,340		11,300	12,430	15,500
Downstream of confluence of Leslie Creek	8,260		11,100	12,300	15,500
Upstream of confluence of Leslie Creek	7,530		10,100	11,200	14,000
<b>McBrown Creek</b>					
Upstream of confluence with Wiggins Creek	175		228	251	305
<b>Mount Hood Creek</b>					
At Cross Section A	1,430		2,090	2,330	2,850
At Cross Section C & M	270		390	440	540
At Cross Section D	1,100		1,390	1,490	1,765
At Cross Section E	375		520	565	665
<b>Nathanson Creek</b>					
At Cross Section A	1,760		2,470	2,780	3,450
At Cross Section G	1,480		2,070	2,320	2,870
At Cross Section O	835		1,260	1,410	1,750
At Napa Road	835		1,250	1,400	1,740
At MacArthur Street	835		1,240	1,390	1,700
At Fourth Street East	840		1,220	1,370	1,670
At Cross Section BZ	835		1,220	1,360	1,650

Source/Location	Discharge (cubic feet/second)				
	10 Percent Annual Chance	2 Percent Annual Chance	1 Percent Annual Chance	0.2 Percent Annual Chance	
At Lovall Valley Road	710		1,030	1,150	1,400
<b>Naval Creek</b>					
At Mouth	297		462	555	813
At Llano Road	269		424	509	748
<b>North Kenwood Creek</b>					
At Mervin Avenue	310		440	490	600
At Cross Section F	290		460	460	565
At Cross Section G	180		230	250	300
At Chateau St. Jean	140		200	220	270
<b>Petaluma River</b>					
Downstream of confluence with Adobe Creek	8,672		11,034	11,910	15,044
At Highway 101 bridge	6,675		9,149	10,494	13,694
Downstream of confluence of Washington Creek	5,758		8,459	9,757	13,056
Downstream of confluence of Lynch Creek	5,246		7,492	8,671	11,563
Downstream of confluence of Capri Creek	4,653		6,583	7,728	10,523
Downstream of confluence of Willow Brook	3,587		4,825	5,360	6,733
Upstream of confluence of Willow Brook	1,701		2,947	3,529	4,801
<b>Pocket Canyon</b>					
Upstream of confluence with Russian River	1,790		2,650	3,050	3,880
Downstream of confluence of Mays Canyon	1,390		2,050	2,360	2,990
Downstream of confluence of Oregon Canyon	840		1,230	1,400	1,780
Upstream of confluence of Oregon Canyon	580		850	970	1,230
<b>Pool Creek</b>					
Upstream of confluence with Windsor Creek	2,283		2,970	3,258	3,815
Upstream of confluence of Pruitt Creek	1,358		1,874	1,906	2,165
At Highway 101	1,152		1,520	1,677	2,030
At Chalk Hill Road	684		895	987	1,200
<b>Pruitt Creek</b>					
Upstream of confluence with Pool Creek	925		1,210	1,311	1,540
At Shiloh Road (upstream crossing)	876		1,146	1,240	1,455
At Fought Road	535		618	767	930
<b>Redwood Creek</b>					
Upstream of confluence with Airport Creek	490		640	715	880
At NWPER	115		150	160	205
<b>Rodgers Creek</b>					
At Cross Section F	2,340		5,820	6,570	10,000
At Cross Section K	2,340		4,660	5,420	8,920
At Cross Section N	2,340		3,880	4,160	6,490
At Cross Section O	815		1,400	1,490	1,910
At Cross Section S	435		740	790	1,030
At Cross Section T	385		655	700	910

Source/Location	Discharge (cubic feet/second)			
	10 Percent Annual Chance	2 Percent Annual Chance	1 Percent Annual Chance	0.2 Percent Annual Chance
<b>Roseland Creek</b>				
At Mouth	622	944	1,106	1,537
At Fresno Avenue	527	781	917	1,294
At Stony Point Road	254	383	452	648
At Burbank Avenue	171	249	290	406
<b>Russian River</b>				
At Pacific Ocean	76,000	102,000	114,000	135,000
Upstream of Duncan Mills	75,000	100,000	112,000	133,000
Upstream of confluence of Austin Creek	74,000	98,000	107,000	131,000
Upstream of Summerhome Gage	73,000	97,000	106,000	130,000
Downstream of confluence of Mark West Creek	67,000	92,000	97,000	126,000
Upstream of confluence of Mark West Creek	60,000	88,000	103,000	140,000
Upstream of confluence of Dry Creek	56,000	79,000	90,000	129,000
Upstream of confluence of Brooks Creek	55,000	78,000	88,000	127,000
Upstream of confluence of Maacama Canal	51,000	73,000	82,000	115,000
Upstream of confluence of Sausal Creek	50,000	71,000	81,000	111,000
Upstream of confluence of Lytton Creek	50,000	70,000	80,000	110,000
Upstream of confluence of Miller Creek	48,000	68,000	79,000	106,000
Upstream of confluence of Gill Creek	47,000	67,000	76,000	105,000
Upstream of confluence of Big Sulphur Creek	46,000	58,000	73,000	100,000
Upstream of confluence of Oat Valley Creek	40,000	56,000	64,000	85,000
<b>Russian River Split Flow</b>				
At Healdsburg Avenue	*	215	640	9,140
<b>Salmon Creek</b>				
Upstream of Bodega Bay	*	*	*	*
<b>Santa Rosa Flood Control Channel</b>				
Downstream of Guerneville Road	21,000	30,300	35,100	44,000
Upstream of confluence of Laguna de Santa Rosa	9,900	14,500	16,500	22,000
Upstream of confluence of Channel No. 3	9,120	13,500	15,200	19,000
<b>Schell Creek</b>				
At Cross Section A	2,710	4,300	4,880	6,140
At Cross Section B	2,650	4,180	4,730	5,940
At Cross Section K	1,830	2,610	2,950	3,680
At Southern Pacific Railroad	1,750	2,470	2,780	3,450
At Cross Section X	1,750	4,400	5,190	8,100
At Cross Section AC	1,750	2,470	2,780	3,450
At Cross Section AI	1,750	2,470	2,780	3,450
At Cross Section AO	205	325	365	455
<b>Sonoma Creek</b>				
At State Route 121	10,590	17,200	18,500	24,200
At Watmaugh Road	9,820	15,500	16,700	21,500



Source/Location	Discharge (cubic feet/second)				
	10 Percent Annual Chance	2 Percent Annual Chance	1 Percent Annual Chance	0.2 Percent Annual Chance	
At Cross Section AL	9,720		15,200	16,400	21,000
At Cross Section BB	9,280		14,500	15,600	20,000
At Cross Section BL	9,050		14,100	15,000	19,200
At Madrone Road	7,900		12,200	13,100	16,800
At Harney Road	7,770		12,000	12,800	16,400
At Cross Section BY	7,640		11,700	12,500	16,000
At Cross Section BZ	5,790		8,780	9,420	11,900
At Cross Section CG	5,500		8,320	8,950	11,300
At Cross Section CL	5,270		7,960	8,550	10,800
At Cross Section CN	4,260		6,400	6,890	8,620
At Cross Section CY	3,860		5,505	5,930	7,385
At Cross Section DD	3,295		4,910	5,300	6,575
At Cross Section DF	2,015		2,985	3,220	3,995
<b>Spring Creek</b>					
Upstream of confluence of Matanzas Creek	700		1,170	1,350	1,730
At Franquette Avenue	580		970	1,120	1,440
Upstream of Yulupa Avenue	400		660	770	990
Upstream of confluence of Sierra Creek	200		360	420	540
Downstream of Summerfield Road	120		200	230	300
<b>Starr Creek</b>					
Upstream of confluence with Windsor Creek	771		1,010	1,122	1,340
Upstream of confluence of Gumview Creek	494		650	717	870
At Windsor Road	236		310	341	415
Upstream of confluence of Wilson Creek	80		102	115135	
<b>Thompson Creek</b>					
At F Street Outfall	490		790	960	1,290
Above Kelly Creek	305		510	600	830
<b>Washington Creek</b>					
At Holly Band Lane	1,249		1,558	1,611	2,161

Source/Location	Discharge (cubic feet/second)				
	10 Percent Annual Chance	2 Percent Annual Chance	1 Percent Annual Chance	0.2 Percent Annual Chance	
Downstream of Maria Drive	682		941	984	1,110
<b>Wiggins Creek</b>					
Upstream of confluence with Marin Creek	1,073		1,405	1,559	1,910
Upstream of confluence of Kizer Creek	768		1,010	1,108	1,385
Upstream of confluence of McBrown Creek	508		660	730	875
At King Road	438		570	627	755
<b>Willow Brook</b>					
At Ely Road	5,749		8,291	9,372	11,656
Upstream of confluence of Lichau Creek	5,691		8,230	9,292	11,541
<b>Wilson Creek</b>					
Upstream of confluence with Marin Creek	413		537	596	715
At Petaluma Valley Ford Road	365		470	525	630
Upstream of confluence of Stark Creek	205		270	295	355
<b>Windsor Creek</b>					
Upstream of confluence with Mark West Creek	5,148		6,860	7,571	9,290
Upstream of confluence of Airport Creek	4,377		5,896	6,436	7,942
Upstream of confluence of Pool Creek	2,472		3,280	3,632	4,497
Upstream of confluence of Starr Creek	1,854		2,461	2,723	3,346
Upstream of confluence of East Windsor Creek	964		1,293	1,415	1,747
At Brooks Road	850		1,120	1,240	1,530
<b>Woolsey Creek</b>					
Upstream of confluence with Mark West Creek	210		290	319	405