

Shortage Probabilities for Lake Mead and AWBA Firming Potential (2020 - 2029)

Full Hydrology (1906-2017)

Probability of Shortage ¹							NIA Indian Firming (af)				Total ² Potential Firming Volume
Year		Tier 0	Tier 1	Tier 2a	Tier 2b	Tier 3	Tier 1	Tier 2a	Tier 2b	Tier3	
	>1090	≤1090 and >1075	≤1075 and >1050	≤1050 and >1045	≤1045 and >1025	≤1025					
		192 kaf	512 kaf	592 kaf	640 kaf	720 kaf					
2020	0%	100%	0%	0%	0%	0%	-	-	-	-	-
2021	26%	70%	4%	0%	0%	0%	7,755	13,811	14,592	13,190	-
2022	32%	44%	24%	0%	0%	0%	9,193	14,184	14,535	13,138	-
2023	34%	28%	29%	1%	8%	0%	9,386	14,351	14,478	13,087	9,386
2024	37%	19%	28%	4%	8%	4%	9,577	14,517	14,422	13,036	9,577
2025	39%	14%	28%	3%	12%	4%	9,801	14,716	14,366	12,985	9,801
2026	38%	14%	25%	1%	15%	7%	12,559	18,643	17,888	16,169	12,559
2027	33%	13%	27%	3%	11%	13%	12,836	18,750	17,819	16,107	12,836
2028	36%	6%	27%	4%	15%	12%	13,109	18,750	17,751	16,045	13,109
2029	40%	4%	22%	4%	17%	13%	13,380	18,750	17,683	15,984	13,380
TOTALS							89,842	146,472	143,535	129,740	80,649

¹ From the Bureau of Reclamation August 2019 Colorado River System Simulation (CRSS) Model

² Water availability data provided by Central Arizona Water Conservation District

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Stress Test Hydrology (1988 - 2017)

Year	Probability of Shortage						Total AWBA Firming (af)				Total Potential Firming Volume
	>1090	Tier 0 >1075 and ≤1090	Tier 1 >1050 and ≤1075	Tier 2a >1045 and ≤1050	Tier 2b >1025 and ≤1045	Tier 3 ≤1025	Tier 1	Tier 2a	Tier 2b	Tier3	
		192 kaf	512 kaf	592 kaf	640 kaf	720 kaf					
2020	0%	100%	0%	0%	0%	0%	-	-	-	-	-
2021	14%	83%	3%	0%	0%	0%	7,755	13,811	30,450	83,614	-
2022	14%	43%	43%	0%	0%	0%	9,193	14,184	32,693	85,862	
2023	16%	37%	27%	3%	17%	0%	9,386	14,351	34,936	88,111	
2024	18%	13%	43%	3%	16%	7%	9,577	14,517	37,181	90,360	9,577
2025	20%	3%	40%	10%	17%	10%	9,801	14,716	39,425	92,609	9,801
2026	23%	0%	27%	0%	40%	10%	12,559	18,643	45,247	98,093	45,247
2027	19%	0%	27%	0%	27%	27%	12,836	18,750	23,751	32,952	32,952
2028	17%	0%	20%	10%	23%	30%	13,109	18,750	24,143	33,350	33,350
2029	20%	0%	17%	10%	20%	33%	13,380	18,750	24,535	34,112	34,112
TOTALS							97,597	146,472	292,361	639,063	165,039

NIA Indian Firming (af)				Total	CAP M&I Subcontract (af)				Total	On-River Firming (af)			
Tier 1	Tier 2a	Tier 2b	Tier3		Tier 1	Tier 2a	Tier 2b	Tier3		Tier 1	Tier 2a	Tier 2b	Tier3
-	-	-	-	-	-	-	-	-	-	-	-	-	-
7,755	13,811	14,592	13,190	-	-	-	15,858	70,424	-	-	-	-	-
9,193	14,184	14,535	13,138	-	-	-	18,158	72,724	-	-	-	-	-
9,386	14,351	14,478	13,087	-	-	-	20,458	75,024	-	-	-	-	-
9,577	14,517	14,422	13,036	9,577	-	-	22,759	77,324	-	-	-	-	-
9,801	14,716	14,366	12,985	9,801	-	-	25,059	79,624	-	-	-	-	-
12,559	18,643	17,888	16,169	17,888	-	-	27,359	81,924	27,359	-	-	-	-
12,836	18,750	17,819	16,107	16,107	-	-	5,932	16,845	16,845	-	-	-	-
13,109	18,750	17,751	16,045	16,045	-	-	6,392	17,305	17,305	-	-	-	-
13,380	18,750	17,683	15,984	15,984	-	-	6,852	17,765	17,765	-	-	-	364
97,597	146,472	143,535	129,740	85,401	-	-	148,826	508,959	79,274	-	-	-	364