

# Appendix V

## Summary of Issues Raised in Comments Grouped by Resource/Issue Area

- V-1 All Comments Ranked by Frequency of Comment**
- V-2 Content Related Comments Ranked by Frequency of Comment**
- V-3 Format/Mechanism Related Comments Ranked by Frequency of Comment**
- V-4 Agriculture Resources Related Comments Ranked by Frequency of Comment**
- V-5 Biological Resources Related Comments Ranked by Frequency of Comment**
- V-6 Cultural Resources Related Comments Ranked by Frequency of Comment**
- V-7 Energy/Power Resources Related Comments Ranked by Frequency of Comment**
- V-8 Groundwater Resources Related Comments Ranked by Frequency of Comment**
- V-9 Hydrology Related Comments Ranked by Frequency of Comment**
- V-10 Land Use/Planning Related Comments Ranked by Frequency of Comment**
- V-11 Mitigation/Monitoring Related Comments Ranked by Frequency of Comment**
- V-12 Population/Housing Related Comments Ranked by Frequency of Comment**
- V-13 Public Services Related Comments Ranked by Frequency of Comment**
- V-14 Recreation Related Comments Ranked by Frequency of Comment**
- V-15 Reservoir Management Related Comments Ranked by Frequency of Comment**
- V-16 Socio-Economics Related Comments Ranked by Frequency of Comment**
- V-17 Transboundary Impacts Related Comment Ranked by Frequency of Comment**
- V-18 Transportation/Traffic Related Comments Ranked by Frequency of Comment**
- V-19 Water Supply/Quantity Related Comments Ranked by Frequency of Comment**
- V-20 Water Quality Related Comments Ranked by Frequency of Comment**
- V-21 Water Rights Related Comments Ranked by Frequency of Comment**
- V-22 Miscellaneous Related Comments Ranked by Frequency of Comment**
- V-23 Alternatives Related Comment Ranked by Frequency of Comment**

# **Appendix V**

## **Summary of Issues Raised in Comments Grouped by Resource/Issue Area**

**V-1 All Comments Ranked by Frequency of Comment**

**Table V-1  
All Comments Ranked by Frequency of Comment**

Comment No.	Comment Summary	Group 1	Group 2	Total
1	Consider/evaluate costs and benefits of decommissioning Glen Canyon Dam	975	6	981
2	Consider/evaluate sustainable sediment management program for Lake Powell and Lake Mead	947	9	956
3	Consider/evaluate transfer of Lake Powell and Lake Mead storage to groundwater aquifers	952	4	956
4	Proposed process requires a full Environmental Impact Statement	949	6	955
5	Update Compact to reflect the Colorado River's supply limitations and changing societal demands	946	5	951
6	Develop plan that maximizes storage at Lake Mead and minimizes storage at Lake Powell	48	10	58
7	Consider/evaluate costs and benefits of restoring natural flows through Glen and Grand Canyons	29	8	37
8	Consider/evaluate protection of cultural resources in Glen Canyon	22	3	25
9	Opposes decommissioning of Glen Canyon Dam	14		14
10	Consider/evaluate aggressive water conservation now to minimize drought impacts in future years	9	2	11
11	Consider/evaluate submitted shortage criteria alternative - "Conservation Before Shortage"	1	7	8
12	Guidelines and strategies should provide priority to water supply over hydrogeneration		8	8
13	Consider /evaluate Arizona shortage and Lake Mead trigger proposal with 600 KAF delivery reduction		8	8
14	Consider/evaluate interim period for guidelines		7	7
15	Consider/evaluate guidelines that require Mexico and Nevada to share in shortages with Arizona		7	7
16	Consider/evaluate flexible criteria that would require consultation with Arizona for reductions in excess of 600 KAF		7	7
17	Consider/evaluate efficiency of storage system based on reality of increased demand and decreased supply	6		6
18	Shortage guidelines and management strategies should all include assumption that Yuma Desalting Plant will be operated at full capacity		6	6
19	Guidelines should be permanent for use in managing water now and in future		5	5
20	Use a basin wide approach for study and criteria implementation	2	2	4
21	Request regular consultations with tribe during development of alternatives	3	1	4
22	Consider/evaluate managing new housing development as means to manage water demands	4		4
23	Consider/evaluate aggressive tamarisk eradication efforts to conserve water	4		4
24	Operation of Lakes Powell and Mead must be consistent with the Law of the River		4	4
25	Evaluate the impacts to power production and power consumers of all alternatives		4	4
26	Evaluate requirement of minimum 8.23 maf/year objective release from Lake Powell		4	4
27	Consider/evaluate strategies that protect minimum power pool elevations at lakes Powell and Mead		4	4
28	Consider/evaluate guidelines that require Mexico share in shortages		4	4
29	Consider/evaluate apportioning shortages among Priority 4 water users consistent with Law of the River and respective contracts		4	4
30	Affected water users and respective State should be allowed to determine how to manage shortages within respective state		4	4
31	Request that Hoover power contractors be consulted on any changes or potential impacts relating to Hoover power production	1	2	3
32	Consider/evaluate effects that guidelines may have on the Law of the River	1	2	3
33	Consider/evaluate return of treated wastewater to river to supplement supplies	2	1	3
34	Request Secretary to assign representative to act as U.S.'s trustee for tribe and provide for direct participation in process	3		3
35	Consider/evaluate ocean desalination water to make up shortages	3		3
36	Consider/evaluate criteria that avoids impacts to reliability to Tribe's CAP water	3		3
37	Implement final management strategy through Record of Decision		3	3
38	Evaluate both direct and indirect environmental and economic impacts to river and all water users		3	3
39	Request to be added to mailing list, kept informed of progress, and provided with copies of study reports	1	1	2
40	Incorporate shortage criteria in the Lower Basin that maintains power generation capacity to Lower Basin customers	1	1	2
41	Develop strategies that facilitate transfer of water from senior water rights holder to more junior water users	1	1	2
42	Develop plan that complies with Federal Laws such as the Endangered Species Act	1	1	2
43	Consider/evaluate specific measures that result in more efficient management of Colorado River water supplies	1	1	2
44	Consider/evaluate restrictions on outdoor water features to conserve water	1	1	2
45	Consider/evaluate reduced but stable Lake Mead levels to minimize impacts to businesses such as Marinas and tour guides	1	1	2
46	Consider/evaluate programs that can augment the available basin supplies, such as cloud seeding, ocean desalination, etc.	1	1	2

**Table V-1  
All Comments Ranked by Frequency of Comment**

Comment No.	Comment Summary	Group 1	Group 2	Total
47	Consider/evaluate new water allocation guidelines that protect critical habitats in Grand Canyon and elsewhere.	1	1	2
48	Consider/evaluate alternative pricing schedules for agricultural water that do not include subsidies and encourage conservation	1	1	2
49	Strategies should maximize the protection afforded to the Upper Basin by Lake Powell	2		2
50	Section 7 consultation needed if reduction in flows below Hoover Dam are more than 1.574 MAF as stated in LCR MSCP BA/BO	2		2
51	Guidelines should be premised upon proportionate sharing of shortages by Mexico	2		2
52	Guidelines should be designed to delay onset and minimize extent and duration of shortages	2		2
53	Guidelines should be coordinated with anticipated releases from Lake Powell during low reservoir conditions	2		2
54	Consider/evaluate shortage criteria that would be interim	2		2
55	Consider/evaluate requiring use of artificial grass to conserve water	2		2
56	Consider/evaluate plan that minimizes releases from Lake Powell	2		2
57	Consider/evaluate plan that limits releases from Lake Powell to 7.5 MAFY	2		2
58	Evaluate impacts on diversions to each Priority water user under varying shortage conditions		2	2
59	Evaluate effects on the timing and rate of lake turnover		2	2
60	Evaluate effects on lake water quality		2	2
61	Develop alternatives with participation of all legitimate stakeholders		2	2
62	Consider/evaluate Lake Mead minimum storage elevation that optimizes water availability for all users & no other elevation protections		2	2
63	Consider/evaluate intra- and interstate sale, lease, transfer, trade or exchange of water within Basin		2	2
64	Consider/evaluate benefits and effects of augmentation of Colorado River water supplies pursuant to 1968 Act		2	2
65	Address potential salinity impacts to Mexico water deliveries	1		1
66	Adjust the Colorado River System Simulation Model to properly calculate active storage in the Upper Basin		1	1
67	Adopt guidelines in a manner that permits modification as new operational information is gained		1	1
68	Adoption of guidelines should be in form of guidelines as opposed to formal federal regulations		1	1
69	All reasonable alternatives need to be analyzed and included in EIS to provide proper advisory document		1	1
70	Any new guidelines show help delay likelihood of a Compact Call on the Upper Basin states		1	1
71	Arizona Game & Fish Department will work with lower basin states to develop report to congress, if needed	1		1
72	Avoid guidelines and strategies that increase risk of shortage in Lower Basin that are not consistent with Law of the River		1	1
73	Avoid impacts to Glen Canyon Adaptive Management Program event-driven sediment experiments	1		1
74	Avoid impacts to river restoration efforts and endangered species	1		1
75	Balance water and electric needs against environmental requirements		1	1
76	Challenges claim that decreasing shortages will have positive impact on fish, wildlife or natural areas		1	1
77	Clarify the post-1968 non-Central Arizona Project rights in Arizona and the post-1968 rights in Nevada in order to determine how shortages will be distributed among the post-1968 entitlements		1	1
78	Conduct and accurate evaluation of long-term costs and socioeconomic impacts associated with land following		1	1
79	Consider charging surcharge to agricultural deliveries to fund conservation projects such as converting ditches to pipelines	1		1
80	Consider Colorado River Salinity Control Act in analysis		1	1
81	Consider conservation of water supply consistent with Lakes Mead and Powell authorization laws	1		1
82	Consider longer-term shortage guidelines if the Interim Surplus Guidelines are extended or modified to run concurrent		1	1
83	Consider market-based strategies		1	1
84	Consider the effect of not protecting power production at both lakes Mead and Powell		1	1
85	Consider Upper Basin releases that enhance storage in Lake Powell to maintain power generation at Glen Canyon	1		1
86	Consider use of paleohydrologic data in analysis to provided extended record of hydroclimatic variability	1		1
87	Consider using similar process used in ISG development	1		1
88	Consider/develop of strategies that maximize power production	1		1
89	Consider/develop of strategies that protect critical water levels at Lake Powell to minimize impacts to stakeholders	1		1

**Table V-1  
All Comments Ranked by Frequency of Comment**

Comment No.	Comment Summary	Group 1	Group 2	Total
90	Consider/evaluate altering 602(a) storage parameters		1	1
91	Consider/evaluate alternatives that ensure sufficient flows for boat safety and navigation	1		1
92	Consider/evaluate Arizona's development of more local supplies to reduce reliance on Arizona project canals		1	1
93	Consider/evaluate benefits and effects of Lower Basin offstream storage		1	1
94	Consider/evaluate benefits and effects of operating Yuma Desalting Plant		1	1
95	Consider/evaluate both permanent and interim guidelines	1		1
96	Consider/evaluate conjunctive reservoir management strategies that optimize recreation on lakes Mead and Powell	1		1
97	Consider/evaluate consistency with and potential impacts to other established programs, i.e. LCRMSCP, Adaptive Mgmt, etc.	1		1
98	Consider/evaluate criteria incorporation into LROC	1		1
99	Consider/evaluate criteria incorporation into LROC and AOP processes	1		1
100	Consider/evaluate criteria that include two levels of shortage determination, first affects CAP deliveries, and affects other Lower Basin State deliveries	1		1
101	Consider/evaluate criteria that includes conjunctive management of Lakes Powell and Mead		1	1
102	Consider/evaluate criteria that limits population and housing growth and increases in-stream-flows	1		1
103	Consider/evaluate criteria that requires equitable sharing of shortages between Upper and Lower basins	1		1
104	Consider/evaluate criteria that restricts reservoir releases when reservoir storage is below 50 percent of capacity	1		1
105	Consider/evaluate criteria that would require proportional sharing of short-term shortages to minimize impacts to low priority right holders	1		1
106	Consider/evaluate critical water levels on lakes Powell and Mead below which many recreational services would be curtailed altogether	1		1
107	Consider/evaluate delivery or diversion restrictions that are imposed in reverse order of priority to protect the rights of holders of senior rights	1		1
108	Consider/evaluate delivery reductions based on actual hydrologic conditions		1	1
109	Consider/evaluate delivery reductions that are flexible and responsive to hydrologic conditions	1		1
110	Consider/evaluate development of contingency plans for equitable distribution of supplies under a shortage flow conditions	1		1
111	Consider/evaluate effect and impacts to water quality		1	1
112	Consider/evaluate effect of annual releases from Glen Canyon Dam on humpback chub	1		1
113	Consider/evaluate effects of the development of the Multi-Species Conservation Plan		1	1
114	Consider/evaluate effects on the ongoing litigation over water supply in the Gunnison River		1	1
115	Consider/evaluate effects that guidelines may have on recently adopted Interim Surplus Guidelines	1		1
116	Consider/evaluate eliminating boating on Lake Mead to protect water quality from fuel spills	1		1
117	Consider/evaluate elimination of 14.85 maf storage requirements set forth in Interim 602(a) Storage Guideline for Management of Colorado River		1	1
118	Consider/evaluate financial and economic feasibility of long-term following program		1	1
119	Consider/evaluate financial and economic impacts of maintaining elevation of Lake Mead at or above minimum power pool elevation		1	1
120	Consider/evaluate Glen Canyon Dam Seasonally Adjusted Steady Flow water management strategies to provide warmer release water temperatures to enhance humpback chub conservation	1		1
121	Consider/evaluate guidelines that trigger drought conditions at Lake Powell when level drops below 3600 feet	1		1
122	Consider/evaluate how higher magnitude shortages would affect the cut-back of rights in the 1929 to 1968 pool of entitlements		1	1
123	Consider/evaluate impacts on NPS units along Colorado River	1		1
124	Consider/evaluate impacts on recreation and tourism along the Colorado River	1		1
125	Consider/evaluate impacts to local and regional economies along the Colorado River	1		1
126	Consider/evaluate including effects of climate variability and long-term trends in climate in analysis and future operations	1		1
127	Consider/evaluate Lake Powell levels and flows thru Grand Canyon that benefit spawning and recruitment of razorback suckers as noted in BO for ISG	1		1
128	Consider/evaluate large-scale water lifters for hydroelectric production to increase turbine efficiency		1	1
129	Consider/evaluate legal and contractual requirements for protecting or not protecting minimum power pool elevations at lakes Powell and Mead		1	1
130	Consider/evaluate mechanism that permits suspension of shortage declaration if hydrologic conditions		1	1

**Table V-1  
All Comments Ranked by Frequency of Comment**

Comment No.	Comment Summary	Group 1	Group 2	Total
	indicate that Lake Powell elevations may rise and reach equalization elevations			
131	Consider/evaluate minimum Grand Canyon flows of 8,000 cfs for protection of native fish	1		1
132	Consider/evaluate more stringent methods for determination of "normal" or "surplus" conditions	1		1
133	Consider/evaluate new source of supply that can provide 750,000 acre feet per year, source to be revealed only after commenter proposed contractual arrangements met	1		1
134	Consider/evaluate new water allocation guidelines that consider more accurate estimates of natural flow	1		1
135	Consider/evaluate operating measures that consider the full range of reservoir operations, not just low reservoir conditions		1	1
136	Consider/evaluate other complimentary programs such as tamarisk removal, cloud seeding, desalination, etc.	1		1
137	Consider/evaluate plan that augments supplies by constructing additional Upper Colorado River water storage capacity	1		1
138	Consider/evaluate plan that includes interstate water leasing consistent with Colorado River Board of California's 1991 proposal for water leasing	1		1
139	Consider/evaluate plan that includes interstate water leasing consistent with Governor Roy Romer's proposal for the 40 year non-development of part of Colorado's allotted water under the	1		1
140	Consider/evaluate plan that stores more water in Upper Basin reservoirs to reduce evaporation losses	1		1
141	Consider/evaluate potential impacts of proposed Yucca Mountain waste disposal site on Colorado River and groundwater supplies	1		1
142	Consider/evaluate potential impacts to boating and fishing	1		1
143	Consider/evaluate potential impacts to fish and wildlife resources from decreased in-stream flows	1		1
144	Consider/evaluate potential impacts to Mittry Lake Wildlife Area by changed river operations	1		1
145	Consider/evaluate potential impacts to operations of Flaming Gorge and Gunnison River	1		1
146	Consider/evaluate potential impacts to other off-stream reservoirs such as Alamo Dam and Lake Pleasant	1		1
147	Consider/evaluate potential impacts to recreation on Grand Canyon National Park and Glen Canyon National Recreation Area	1		1
148	Consider/evaluate potential impacts to recreation on lakes Mead and Powell	1		1
149	Consider/evaluate potential impacts to riparian vegetation from declining levels in reservoirs and river	1		1
150	Consider/evaluate potential impacts to sportfish reproduction within mainstem reservoirs	1		1
151	Consider/evaluate potential impacts to water supply intake pumps resulting from future reduced in-stream flows	1		1
152	Consider/evaluate potential impacts to Willow Beach National Fish Hatchery as a production facility	1		1
153	Consider/evaluate potential of new law suit opposing All-American Canal Lining Project	1		1
154	Consider/evaluate potential opportunities for improved fish & wildlife management	1		1
155	Consider/evaluate power conservation program to minimize hydro-peaking releases	1		1
156	Consider/evaluate proactive steps to prevent future shortages from occurring	1		1
157	Consider/evaluate programs that augment the water supply to the system		1	1
158	Consider/evaluate programs to allow use of mainstem water by forbearance, replacement, or exchange	1		1
159	Consider/evaluate reallocation of water between agricultural and municipal	1		1
160	Consider/evaluate Reclamation's ability to fund a long-term land following program		1	1
161	Consider/evaluate reconstruction of Glen Canyon Dam to be made structurally safer	1		1
162	Consider/evaluate reducing California's Colorado River water supply and replacing it with sustainable supplies such as ocean desalination		1	1
163	Consider/evaluate reducing federal subsidies to cotton and sugar cane farmers		1	1
164	Consider/evaluate replacing Southern California' Colorado River water supply with water from Northern California		1	1
165	Consider/evaluate requiring use of more efficient irrigation practices as means to conserve water	1		1
166	Consider/evaluate reservoir management strategy that would store water in headwater reservoirs as long as possible	1		1
167	Consider/evaluate role of watershed and soils disturbing activities on Colorado River system		1	1
168	Consider/evaluate shortage criteria that reduces deliveries to all users by same percentage amount	1		1
169	Consider/evaluate shortage criteria that reduces deliveries to all users, other than those with Present Perfected rights, by same percentage amount		1	1
170	Consider/evaluate socio-economic impact of low levels of lakes Mead and Powell		1	1
171	Consider/evaluate specific mandatory conservation strategies tied to hydrologic predictions	1		1
172	Consider/evaluate start-up and expanded Yuma Desalter Project operations	1		1
173	Consider/evaluate storage losses and required conservation volumes associated with long-term land following programs		1	1

**Table V-1  
All Comments Ranked by Frequency of Comment**

Comment No.	Comment Summary	Group 1	Group 2	Total
174	Consider/evaluate storage of surplus supplies in groundwater aquifers, when available	1		1
175	Consider/evaluate storage options that maximize power production	1		1
176	Consider/evaluate storage options that minimize evaporation	1		1
177	Consider/evaluate strategies that establish critical water levels at lakes Mead and Powell	1		1
178	Consider/evaluate strategies that manage Lake Powell and Mead water levels to protect Las Vegas' water supply		1	1
179	Consider/evaluate strategies that protect federal mandates such as protect nation and preserve national sovereignty	1		1
180	Consider/evaluate strategies that protect Federal Reserved Water Rights	1		1
181	Consider/evaluate strategies that provide for equitable sharing of shortages between parties to international treaties	1		1
182	Consider/evaluate timing of flows into Lake Mead to allow for riparian management at its delta to provide habitat for the endangered southwestern willow flycatcher and other migratory bird species	1		1
183	Consider/evaluate top water storage of users unused entitlement as opposed to re-allocation to other users		1	1
184	Consider/evaluate Upper Basin delivery schedules that allow releases less than 8.23 maf/year from Lake Powell	1		1
185	Consider/evaluate use of Lake Mead as primary flood control facility in system	1		1
186	Consider/evaluate value of voluntary intra-state fallowing and other arrangements deemed necessary to mitigate impacts resulting from shortages		1	1
187	Consider/evaluate water conservation effect of alternative rebate programs to convert turf to desert landscape		1	1
188	Consider/evaluate water conservation effects if replace hydroelectric power with wind and solar generation		1	1
189	Consider/evaluate water quality impacts below Lake Mead		1	1
190	Consult with Hoover power contractors and brief them on proposed changes and proposed mitigation prior to adoption of new strategies and guidelines		1	1
191	Criteria should assure 7.5 maf delivery to the Lower Basin		1	1
192	Criteria should give priority to meeting domestic and agricultural demands over power generation		1	1
193	Criteria should maintain current apportionment to assure state's future development project needs	1		1
194	Develop and implement drought management solutions now to minimize impacts in future years	1		1
195	Develop and include in EIS a comprehensive overview of allocation and uses of water in Lower Colorado River Basin		1	1
196	Develop and use accurate Upper Basin depletions and projected new depletions for use in calculating 602(a) storage requirements		1	1
197	Develop basin-wide conjunction water supply management program that considers all sources of supply		1	1
198	Develop methods to minimize and fully mitigate any adverse impacts in and to the value of power that Hoover power contracts will receive		1	1
199	Develop monitoring and accounting systems to evaluate impacts of shortages		1	1
200	Develop plan consistent with international treaty obligations	1		1
201	Develop plan that accommodates recreational industry	1		1
202	Develop plan that maximizes beneficial use of the available water for domestic municipal and agricultural in U.S.	1		1
203	Develop plan that maximizes generation of electrical power	1		1
204	Development of shortage guidelines should consider protection of elevations that will allow SNWA intakes to function		1	1
205	Does not believe full Environmental Impact Statement is needed, do not waste the money	1		1
206	Evaluate current planned equalization triggers and criteria used to calculate upper basin storage		1	1
207	Evaluate effect of livestock and grazed areas on runoff and sediment		1	1
208	Evaluate effects on Treaty obligations with Tribes and Mexico, Biological Opinions, discharge and diversion permits, and other agreements, such as those to restore the Colorado River Delta.		1	1
209	Evaluate effects on dilution of perchlorate entering Lake Mead from Henderson, Nevada via Las Vegas Wash		1	1
210	Evaluate effects on fisheries, threatened and endangered species, and the Lower Colorado River Multiple Species Habitat Conservation Strategy		1	1
211	Evaluate effects on flood control		1	1
212	Evaluate effects on general water quality and end uses of water going to Arizona, California, Nevada, and Mexico		1	1
213	Evaluate effects on groundwater from potential transition from surface water use to groundwater use		1	1

**Table V-1  
All Comments Ranked by Frequency of Comment**

Comment No.	Comment Summary	Group 1	Group 2	Total
214	Evaluate effects on hydroelectric generation and Lake Mead and Lake Powell equalization requirements		1	1
215	Evaluate effects on in-stream water quality and water reaching the Colorado River Delta, including water temperatures and flow fluctuations		1	1
216	Evaluate effects on recreation, such as rafting in the Grand Canyon, fishing, and visual effects of reservoir draw-downs		1	1
217	Evaluate effects on salinity, mercury, sediment, radioactive substances and other constituents of Lower Colorado River water		1	1
218	Evaluate effects on sediment movement and impacts on beach replenishment in the Grand Canyon		1	1
219	Evaluate effects on the Southern Nevada Water Authority's drinking water supply and its intakes		1	1
220	Evaluate effects on water rights, including Tribal water rights		1	1
221	Evaluate effects on water supply diversion quantities and schedules		1	1
222	Evaluate effects that guidelines may have on urban areas		1	1
223	Evaluate guidelines ability to restore river flows to pre-dam conditions		1	1
224	Evaluate methods to mitigate impacts on amount and value of power Hoover Contractors will receive	1		1
225	Evaluate/determine Secretary's authority to reduce annual releases from Lake Powell below 8.23 MAF		1	1
226	For all alternatives to be considered, evaluate potential impacts to Hoover power production	1		1
227	For all alternatives to be considered, evaluate potential impacts to power production	1		1
228	Guidelines should be adopted in a timely manner to augment the water supplies and provide Nevada time to develop additional permanent supplies		1	1
229	Guidelines should be interim and end in 2016		1	1
230	Guidelines should be structured to give protection to senior entitlements as established in the 1968 Colorado River Basin Act and 1964 Supreme Court decree		1	1
231	Guidelines should delay likelihood and reduce magnitude of declared shortages		1	1
232	Guidelines should not include programs that place involuntary taxes or user fees on water or power users		1	1
233	Implementation of strategies/shortage guidelines may be beneficial	1		1
234	Implementation should be through AOP	1		1
235	In the absence of a Consensus Plan, the Basin states would like the opportunity to submit specific alternatives for evaluation		1	1
236	Include Lake Powell in management strategies/shortage guidelines	1		1
237	Include language in Management Strategies stating that IBWC Minute No. 242 will not be changed	1		1
238	Incorporate shortage criteria in the Lower Basin that minimizes impacts to water quality of low reservoir conditions	1		1
239	Incorporate shortage criteria in the Lower Basin that recognizes water right priorities	1		1
240	Interim strategies that end before 2017 may impact negotiation of Hoover Service Contracts	1		1
241	Management Strategies should address adverse impacts to water deliveries to Mexico	1		1
242	Maximize storage at Lake Mead to maximize power production at Hoover Dam and make up lost power production capacity at Glen Canyon Dam	1		1
243	Need to consider effects of adopting both interim and permanent criteria		1	1
244	NEPA analysis needs to evaluate impacts of the guidelines and strategies collectively with other proposed projects such as bypass flow replacement, operation of YDP, new regulatory storage facilities, etc.		1	1
245	No Action Alternative must represent current conditions and current operational constraints		1	1
246	Opposes development of expensive and complex Reclamation-managed land following program as alternative to protect junior water users		1	1
247	Opposes inclusion of Conservation Before Shortage alternative in EIS		1	1
248	Opposes power surcharge to protect future marginal power production loss at Hoover Dam		1	1
249	Opposes use of any water and power surcharges to fund Reclamation-managed land following program		1	1
250	Please advise if there will be additional public meetings in Phoenix	1		1
251	Protect cultural resources in Glen and Grand canyons by discontinuing storage in Lake Powell	1		1
252	Provide information on public scoping meetings.		1	1
253	Provide results of public scoping meetings		1	1
254	Quechan Tribe requests to be listed as a party of interest and notified of additional opportunities to comment	1		1
255	Re-evaluate how determination of "normal" or "surplus" conditions are made		1	1
256	Request consultation with Mexico to explain NEPA process and potential impacts on water quantity and quality to Mexico deliveries	1		1
257	Request Reclamation consult with Basin States on development of any and all alternatives		1	1
258	Request that criteria developed for determining "shortage flow status" clear and concise	1		1
259	Request that oral comments presented in Public Scoping Meetings be incorporated in public comments		1	1

**Table V-1  
All Comments Ranked by Frequency of Comment**

Comment No.	Comment Summary	Group 1	Group 2	Total
260	Request that power production be removed from the storage algorithm used to model and determine releases from Lake Powell under Section 602(a)		1	1
261	Request that Western Area Power Administration be included in process to help analyze potential impacts relating to power production		1	1
262	Require each lower division state to look at intrastate resources to mitigate shortage impacts before looking at resources of other states		1	1
263	Reservoir operating guidelines should benefit both Upper and Lower Basins		1	1
264	Secretary must account for needs and water rights of Navajo Nation	1		1
265	Section 7 consultation needed if develop Glen Canyon Dam monthly or daily release patterns that differ from those specified in the 1995 ROD	1		1
266	Section 7 consultation needed if projected conditions are different than stated in LCR MSCP BA/BO	1		1
267	Section 7 consultation needed if projected Lake Mead elevations are lower than elevations in LCR MSCP BA/BO	1		1
268	Shortage guidelines should cover only that group of entitlements that are post-September 30, 1968 in priority		1	1
269	Shortages should be first applied to users with post-1968 entitlements		1	1
270	Support the comments and recommendations submitted by the Arizona Department of Water Resources		1	1
271	Supports position and recommendations of Basin States	1		1
272	Supports position of Glen Canyon Institute for Glen Canyon Dam	1		1
273	The guidelines should be permanent for use in managing water now and in future	1		1
274	The preferred alternative should take the form of guidelines, similar to ISGs	1		1
275	Undertake a complete review of Section 602(a) of the Colorado River Basin Project Act of 1968		1	1
276	Undertake a complete review of the storage algorithm used to model and determine releases from Lake Powell under Section 602(a)		1	1
277	Update reference to drought or the allocation of waters between the U.S. and Mexico consistent with terminology used in 1944 Water Treaty	1		1
278	Use process that weighs benefits against impacts	1		1
<b>Total Comments</b>		<b>5,065</b>	<b>275</b>	<b>5,340</b>

# **Appendix V**

## **Summary of Issues Raised in Comments Grouped by Resource/Issue Area**

**V-2 Content Related Comments Ranked by Frequency of Comment**

**Table V-2**  
**Content Related Comments Ranked by Frequency of Comment**

Comment No.	Comment Summary	Group 1	Group 2	Total
1	Consider/evaluate costs and benefits of decommissioning Glen Canyon Dam	975	6	981
2	Consider/evaluate sustainable sediment management program for Lake Powell and Lake Mead	947	9	956
3	Consider/evaluate transfer of Lake Powell and Lake Mead storage to groundwater aquifers	952	4	956
4	Update Compact to reflect the Colorado River's supply limitations and changing societal demands	946	5	951
5	Develop plan that maximizes storage at Lake Mead and minimizes storage at Lake Powell	48	10	58
6	Consider/evaluate costs and benefits of restoring natural flows through Glen and Grand Canyons	29	8	37
7	Consider/evaluate protection of cultural resources in Glen Canyon	22	3	25
8	Opposes decommissioning of Glen Canyon Dam	14		14
9	Consider/evaluate aggressive water conservation now to minimize drought impacts in future years	9	2	11
10	Consider/evaluate submitted shortage criteria alternative - "Conservation Before Shortage"	1	7	8
11	Guidelines and strategies should provide priority to water supply over hydrogeneration		8	8
12	Consider /evaluate Arizona shortage and Lake Mead trigger proposal with 600 KAF delivery reduction		8	8
13	Consider/evaluate guidelines that require Mexico and Nevada to share in shortages with Arizona		7	7
14	Consider/evaluate flexible criteria that would require consultation with Arizona for reductions in excess of 600 KAF		7	7
15	Shortage guidelines and management strategies should all include assumption that Yuma Desalting Plant will be operated at full capacity		6	6
16	Consider/evaluate managing new housing development as means to manage water demands	4		4
17	Consider/evaluate aggressive tamarisk eradication efforts to conserve water	4		4
18	Evaluate the impacts to power production and power consumers of all alternatives		4	4
19	Evaluate requirement of minimum 8.23 maf/year objective release from Lake Powell		4	4
20	Consider/evaluate strategies that protect minimum power pool elevations at lakes Powell and Mead		4	4
21	Consider/evaluate guidelines that require Mexico share in shortages		4	4
22	Consider/evaluate return of treated wastewater to river to supplement supplies	2	1	3
23	Consider/evaluate ocean desalination water to make up shortages	3		3
24	Incorporate shortage criteria in the Lower Basin that maintains power generation capacity to Lower Basin customers	1	1	2
25	Develop strategies that facilitate transfer of water from senior water rights holder to more junior water users	1	1	2
26	Consider/evaluate specific measures that result in more efficient management of Colorado River water supplies	1	1	2
27	Consider/evaluate restrictions on outdoor water features to conserve water	1	1	2
28	Consider/evaluate reduced but stable Lake Mead levels to minimize impacts to businesses such as Marinas and tour guides	1	1	2
29	Consider/evaluate programs that can augment the available basin supplies, such as cloud seeding, ocean desalination, etc.	1	1	2
30	Consider/evaluate new water allocation guidelines that protect critical habitats in Grand Canyon and elsewhere.	1	1	2
31	Consider/evaluate alternative pricing schedules for agricultural water that do not include subsidies and encourage conservation	1	1	2
32	Strategies should maximize the protection afforded to the Upper Basin by Lake Powell	2		2
33	Guidelines should be premised upon proportionate sharing of shortages by Mexico	2		2
34	Guidelines should be coordinated with anticipated releases from Lake Powell during low reservoir conditions	2		2
35	Consider/evaluate requiring use of artificial grass to conserve water	2		2
36	Consider/evaluate plan that minimizes releases from Lake Powell	2		2
37	Consider/evaluate plan that limits releases from Lake Powell to 7.5 MAFY	2		2
38	Evaluate effects on lake water quality		2	2
39	The guidelines should be permanent for use in managing water now and in future	1		1
40	Protect cultural resources in Glen and Grand canyons by discontinuing storage in Lake Powell	1		1
41	Maximize storage at Lake Mead to maximize power production at Hoover Dam and make up lost power production capacity at Glen Canyon Dam	1		1
42	Incorporate shortage criteria in the Lower Basin that recognizes water right priorities	1		1
43	Incorporate shortage criteria in the Lower Basin that minimizes impacts to water quality of low reservoir conditions	1		1
44	Include language in Management Strategies stating that IBWC Minute No. 242 will not be changed	1		1

**Table V-2  
Content Related Comments Ranked by Frequency of Comment**

Comment No.	Comment Summary	Group 1	Group 2	Total
45	Include Lake Powell in management strategies/shortage guidelines	1		1
46	Evaluate methods to mitigate impacts on amount and value of power Hoover Contractors will receive	1		1
47	Develop plan that maximizes generation of electrical power	1		1
48	Develop plan that maximizes beneficial use of the available water for domestic municipal and agricultural in U.S.	1		1
49	Develop plan that accommodates recreational industry	1		1
50	Criteria should maintain current apportionment to assure state's future development project needs	1		1
51	Consider/evaluate use of Lake Mead as primary flood control facility in system	1		1
52	Consider/evaluate Upper Basin delivery schedules that allow releases less than 8.23 maf/year from Lake Powell	1		1
53	Consider/evaluate timing of flows into Lake Mead to allow for riparian management at its delta to provide habitat for the endangered southwestern willow flycatcher and other migratory bird species	1		1
54	Consider/evaluate strategies that provide for equitable sharing of shortages between parties to international treaties	1		1
55	Consider/evaluate strategies that protect Federal Reserved Water Rights	1		1
56	Consider/evaluate strategies that protect federal mandates such as protect nation and preserve national sovereignty	1		1
57	Consider/evaluate strategies that establish critical water levels at lakes Mead and Powell	1		1
58	Consider/evaluate storage options that minimize evaporation	1		1
59	Consider/evaluate storage options that maximize power production	1		1
60	Consider/evaluate storage of surplus supplies in groundwater aquifers, when available	1		1
61	Consider/evaluate start-up and expanded Yuma Desalter Project operations	1		1
62	Consider/evaluate specific mandatory conservation strategies tied to hydrologic predictions	1		1
63	Consider/evaluate shortage criteria that reduces deliveries to all users by same percentage amount	1		1
64	Consider/evaluate reservoir management strategy that would store water in headwater reservoirs as long as possible	1		1
65	Consider/evaluate requiring use of more efficient irrigation practices as means to conserve water	1		1
66	Consider/evaluate reconstruction of Glen Canyon Dam to be made structurally safer	1		1
67	Consider/evaluate reallocation of water between agricultural and municipal	1		1
68	Consider/evaluate programs to allow use of mainstem water by forbearance, replacement, or exchange	1		1
69	Consider/evaluate proactive steps to prevent future shortages from occurring	1		1
70	Consider/evaluate power conservation program to minimize hydro-peaking releases	1		1
71	Consider/evaluate plan that stores more water in Upper Basin reservoirs to reduce evaporation losses	1		1
72	Consider/evaluate plan that includes interstate water leasing consistent with Governor Roy Romer's proposal for the 40 year non-development of part of Colorado's allotted water under the	1		1
73	Consider/evaluate plan that includes interstate water leasing consistent with Colorado River Board of California's 1991 proposal for water leasing	1		1
74	Consider/evaluate plan that augments supplies by constructing additional Upper Colorado River water storage capacity	1		1
75	Consider/evaluate other complimentary programs such as tamarisk removal, cloud seeding, desalination, etc.	1		1
76	Consider/evaluate new water allocation guidelines that consider more accurate estimates of natural flow	1		1
77	Consider/evaluate new source of supply that can provide 750,000 acre feet per year, source to be revealed only after commenter proposed contractual arrangements met	1		1
78	Consider/evaluate minimum Grand Canyon flows of 8,000 cfs for protection of native fish	1		1
79	Consider/evaluate Lake Powell levels and flows thru Grand Canyon that benefit spawning and recruitment of razorback suckers as noted in BO for ISG	1		1
80	Consider/evaluate including effects of climate variability and long-term trends in climate in analysis and future operations	1		1
81	Consider/evaluate guidelines that trigger drought conditions at Lake Powell when level drops below 3600 feet	1		1
82	Consider/evaluate Glen Canyon Dam Seasonally Adjusted Steady Flow water management strategies to provide warmer release water temperatures to enhance humpback chub conservation	1		1
83	Consider/evaluate delivery reductions that are flexible and responsive to hydrologic conditions	1		1
84	Consider/evaluate delivery or diversion restrictions that are imposed in reverse order of priority to protect the rights of holders of senior rights	1		1
85	Consider/evaluate critical water levels on lakes Powell and Mead below which many recreational	1		1

**Table V-2  
Content Related Comments Ranked by Frequency of Comment**

Comment No.	Comment Summary	Group 1	Group 2	Total
	services would be curtailed altogether			
86	Consider/evaluate criteria that would require proportional sharing of short-term shortages to minimize impacts to low priority right holders	1		1
87	Consider/evaluate criteria that restricts reservoir releases when reservoir storage is below 50 percent of capacity	1		1
88	Consider/evaluate criteria that requires equitable sharing of shortages between Upper and Lower basins	1		1
89	Consider/evaluate criteria that limits population and housing growth and increases in-stream-flows	1		1
90	Consider/evaluate criteria that include two levels of shortage determination, first affects CAP deliveries, and affects other Lower Basin State deliveries	1		1
91	Consider/evaluate conjunctive reservoir management strategies that optimize recreation on lakes Mead and Powell	1		1
92	Consider/evaluate alternatives that ensure sufficient flows for boat safety and navigation	1		1
93	Consider/develop of strategies that protect critical water levels at Lake Powell to minimize impacts to stakeholders	1		1
94	Consider/develop of strategies that maximize power production	1		1
95	Consider use of paleohydrologic data in analysis to provided extended record of hydroclimatic variability	1		1
96	Consider Upper Basin releases that enhance storage in Lake Powell to maintain power generation at Glen Canyon	1		1
97	Consider conservation of water supply consistent with Lakes Mead and Powell authorization laws	1		1
98	Consider charging surcharge to agricultural deliveries to fund conservation projects such as converting ditches to pipelines	1		1
99	Undertake a complete review of the storage algorithm used to model and determine releases from Lake Powell under Section 602(a)		1	1
100	Undertake a complete review of Section 602(a) of the Colorado River Basin Project Act of 1968		1	1
101	Shortages should be first applied to users with post-1968 entitlements		1	1
102	Shortage guidelines should cover only that group of entitlements that are post-September 30, 1968 in priority		1	1
103	Reservoir operating guidelines should benefit both Upper and Lower Basins		1	1
104	Require each lower division state to look at intrastate resources to mitigate shortage impacts before looking at resources of other states		1	1
105	Request that power production be removed from the storage algorithm used to model and determine releases from Lake Powell under Section 602(a)		1	1
106	Request that oral comments presented in Public Scoping Meetings be incorporated in public comments		1	1
107	Re-evaluate how determination of "normal" or "surplus" conditions are made		1	1
108	Opposes use of any water and power surcharges to fund Reclamation-managed land following program		1	1
109	Opposes power surcharge to protect future marginal power production loss at Hoover Dam		1	1
110	Opposes development of expensive and complex Reclamation-managed land following program as alternative to protect junior water users		1	1
111	No Action Alternative must represent current conditions and current operational constraints		1	1
112	NEPA analysis needs to evaluate impacts of the guidelines and strategies collectively with other proposed projects such as bypass flow replacement, operation of YDP, new regulatory storage facilities, etc.		1	1
113	Guidelines should not include programs that place involuntary taxes or user fees on water or power users		1	1
114	Guidelines should delay likelihood and reduce magnitude of declared shortages		1	1
115	Guidelines should be structured to give protection to senior entitlements as established in the 1968 Colorado River Basin Act and 1964 Supreme Court decree		1	1
116	Evaluate guidelines ability to restore river flows to pre-dam conditions		1	1
117	Evaluate effects on sediment movement and impacts on beach replenishment in the Grand Canyon		1	1
118	Evaluate effects on salinity, mercury, sediment, radioactive substances and other constituents of Lower Colorado River water		1	1
119	Evaluate effects on in-stream water quality and water reaching the Colorado River Delta, including water temperatures and flow fluctuations		1	1
120	Evaluate effects on hydroelectric generation and Lake Mead and Lake Powell equalization requirements		1	1
121	Evaluate effects on groundwater from potential transition from surface water use to groundwater use		1	1
122	Evaluate effects on general water quality and end uses of water going to Arizona, California, Nevada, and Mexico		1	1

**Table V-2**  
**Content Related Comments Ranked by Frequency of Comment**

Comment No.	Comment Summary	Group 1	Group 2	Total
123	Evaluate effect of livestock and grazed areas on runoff and sediment		1	1
124	Evaluate current planned equalization triggers and criteria used to calculate upper basin storage		1	1
125	Development of shortage guidelines should consider protection of elevations that will allow SNWA intakes to function		1	1
126	Develop methods to minimize and fully mitigate any adverse impacts in and to the value of power that Hoover power contracts will receive		1	1
127	Develop basin-wide conjunction water supply management program that considers all sources of supply		1	1
128	Develop and use accurate Upper Basin depletions and projected new depletions for use in calculating 602(a) storage requirements		1	1
129	Develop and include in EIS a comprehensive overview of allocation and uses of water in Lower Colorado River Basin		1	1
130	Criteria should give priority to meeting domestic and agricultural demands over power generation		1	1
131	Criteria should assure 7.5 maf delivery to the Lower Basin		1	1
132	Consult with Hoover power contractors and brief them on proposed changes and proposed mitigation prior to adoption of new strategies and guidelines		1	1
133	Consider/evaluate water quality impacts below Lake Mead		1	1
134	Consider/evaluate water conservation effects if replace hydroelectric power with wind and solar generation		1	1
135	Consider/evaluate water conservation effect of alternative rebate programs to convert turf to desert landscape		1	1
136	Consider/evaluate value of voluntary intra-state fallowing and other arrangements deemed necessary to mitigate impacts resulting from shortages		1	1
137	Consider/evaluate top water storage of users unused entitlement as opposed to re-allocation to other users		1	1
138	Consider/evaluate strategies that manage Lake Powell and Mead water levels to protect Las Vegas' water supply		1	1
139	Consider/evaluate storage losses and required conservation volumes associated with long-term land fallowing programs		1	1
140	Consider/evaluate socio-economic impact of low levels of lakes Mead and Powell		1	1
141	Consider/evaluate reducing federal subsidies to cotton and sugar cane farmers		1	1
142	Consider/evaluate reducing California's Colorado River water supply and replacing it with sustainable supplies such as ocean desalination		1	1
143	Consider/evaluate Reclamation's ability to fund a long-term land fallowing program		1	1
144	Consider/evaluate programs that augment the water supply to the system		1	1
145	Consider/evaluate operating measures that consider the full range of reservoir operations, not just low reservoir conditions		1	1
146	Consider/evaluate legal and contractual requirements for protecting or not protecting minimum power pool elevations at lakes Powell and Mead		1	1
147	Consider/evaluate large-scale water lifters for hydroelectric production to increase turbine efficiency		1	1
148	Consider/evaluate financial and economic impacts of maintaining elevation of Lake Mead at or above minimum power pool elevation		1	1
149	Consider/evaluate financial and economic feasibility of long-term fallowing program		1	1
150	Consider/evaluate elimination of 14.85 maf storage requirements set forth in Interim 602(a) Storage Guideline for Management of Colorado River		1	1
151	Consider/evaluate effects of the development of the Multi-Species Conservation Plan		1	1
152	Consider/evaluate effect and impacts to water quality		1	1
153	Consider/evaluate delivery reductions based on actual hydrologic conditions		1	1
154	Consider/evaluate criteria that includes conjunctive management of Lakes Powell and Mead		1	1
155	Consider/evaluate benefits and effects of operating Yuma Desalting Plant		1	1
156	Consider/evaluate altering 602(a) storage parameters		1	1
157	Consider the effect of not protecting power production at both lakes Mead and Powell		1	1
158	Consider Colorado River Salinity Control Act in analysis		1	1
<b>Total Comments</b>		<b>4,036</b>	<b>177</b>	<b>4,213</b>

# **Appendix V**

## **Summary of Issues Raised in Comments Grouped by Resource/Issue Area**

**V-3 Format/Mechanism Related Comments Ranked by Frequency of Comment**

**Table V-3  
Format / Mechanism Related Comments Ranked by Frequency of Comment**

Comment No.	Comment Summary	Group 1	Group 2	Total
1	Proposed process requires a full Environmental Impact Statement	949	6	955
2	Update Compact to reflect the Colorado River's supply limitations and changing societal demands	946	5	951
3	Consider/evaluate interim period for guidelines		7	7
4	Guidelines should be permanent for use in managing water now and in future		5	5
5	Operation of Lakes Powell and Mead must be consistent with the Law of the River		4	4
6	Request regular consultations with tribe during development of alternatives	3	1	4
7	Use a basin wide approach for study and criteria implementation	2	2	4
8	Evaluate both direct and indirect environmental and economic impacts to river and all water users		3	3
9	Implement final management strategy through Record of Decision		3	3
10	Request Secretary to assign representative to act as U.S.'s trustee for tribe and provide for direct participation in process	3		3
11	Request that Hoover power contractors be consulted on any changes or potential impacts relating to Hoover power production	1	2	3
12	Consider/evaluate shortage criteria that would be interim	2		2
13	Develop alternatives with participation of all legitimate stakeholders		2	2
14	Develop plan that complies with Federal Laws such as the Endangered Species Act	1	1	2
15	Guidelines should be designed to delay onset and minimize extent and duration of shortages	2		2
16	Guidelines should be premised upon proportionate sharing of shortages by Mexico	2		2
17	Section 7 consultation needed if reduction in flows below Hoover Dam are more than 1.574 MAF as stated in LCR MSCP BA/BO	2		2
18	Strategies should maximize the protection afforded to the Upper Basin by Lake Powell	2		2
19	Adopt guidelines in a manner that permits modification as new operational information is gained		1	1
20	Adoption of guidelines should be in form of guidelines as opposed to formal federal regulations		1	1
21	All reasonable alternatives need to be analyzed and included in EIS to provide proper advisory document		1	1
22	Arizona Game & Fish Department will work with lower basin states to develop report to congress, if needed	1		1
23	Consider conservation of water supply consistent with Lakes Mead and Powell authorization laws	1		1
24	Consider longer-term shortage guidelines if the Interim Surplus Guidelines are extended or modified to run concurrent		1	1
25	Consider using similar process used in ISG development	1		1
26	Consider/evaluate both permanent and interim guidelines	1		1
27	Consider/evaluate criteria incorporation into LROC	1		1
28	Consider/evaluate criteria incorporation into LROC and AOP processes	1		1
29	Consider/evaluate criteria that include two levels of shortage determination, first affects CAP deliveries, and affects other Lower Basin State deliveries	1		1
30	Consider/evaluate delivery or diversion restrictions that are imposed in reverse order of priority to protect the rights of holders of senior rights	1		1
31	Consider/evaluate mechanism that permits suspension of shortage declaration if hydrologic conditions indicate that Lake Powell elevations may rise and reach equalization elevations		1	1
32	Consider/evaluate new source of supply that can provide 750,000 acre feet per year, source to be revealed only after commenter proposed contractual arrangements met	1		1
33	Develop and implement drought management solutions now to minimize impacts in future years	1		1
34	Does not believe full Environmental Impact Statement is needed, do not waste the money	1		1
35	Evaluate effects on Treaty obligations with Tribes and Mexico, Biological Opinions, discharge and diversion permits, and other agreements, such as those to restore the Colorado River Delta.		1	1
36	Evaluate effects on fisheries, threatened and endangered species, and the Lower Colorado River Multiple Species Habitat Conservation Strategy		1	1
37	Evaluate/determine Secretary's authority to reduce annual releases from Lake Powell below 8.23 MAF		1	1
38	Guidelines should be adopted in a timely manner to augment the water supplies and provide Nevada time to develop additional permanent supplies		1	1
39	Guidelines should be interim and end in 2016		1	1
40	Implementation of strategies/shortage guidelines may be beneficial	1		1
41	Implementation should be through AOP	1		1
42	Include language in Management Strategies stating that IBWC Minute No. 242 will not be changed	1		1
43	Interim strategies that end before 2017 may impact negotiation of Hoover Service Contracts	1		1

**Table V-3  
Format / Mechanism Related Comments Ranked by Frequency of Comment**

Comment No.	Comment Summary	Group 1	Group 2	Total
44	Need to consider effects of adopting both interim and permanent criteria		1	1
45	NEPA analysis needs to evaluate impacts of the guidelines and strategies collectively with other proposed projects such as bypass flow replacement, operation of YDP, new regulatory storage facilities, etc.		1	1
46	Quechan Tribe requests to be listed as a party of interest and notified of additional opportunities to comment	1		1
47	Request consultation with Mexico to explain NEPA process and potential impacts on water quantity and quality to Mexico deliveries	1		1
48	Request Reclamation consult with Basin States on development of any and all alternatives		1	1
49	Request that criteria developed for determining "shortage flow status" clear and concise	1		1
50	Request that Western Area Power Administration be included in process to help analyze potential impacts relating to power production		1	1
51	Secretary must account for needs and water rights of Navajo Nation	1		1
52	Section 7 consultation needed if develop Glen Canyon Dam monthly or daily release patterns that differ from those specified in the 1995 ROD	1		1
53	Section 7 consultation needed if projected conditions are different than stated in LCR MSCP BA/BO	1		1
54	Section 7 consultation needed if projected Lake Mead elevations are lower than elevations in LCR MSCP BA/BO	1		1
55	The guidelines should be permanent for use in managing water now and in future	1		1
56	The preferred alternative should take the form of guidelines, similar to ISGs	1		1
57	Update reference to drought or the allocation of waters between the U.S. and Mexico consistent with terminology used in 1944 Water Treaty	1		1
58	Use process that weighs benefits against impacts	1		1
<b>Total Comments</b>		<b>1,941</b>	<b>55</b>	<b>1,996</b>

# **Appendix V**

## **Summary of Issues Raised in Comments Grouped by Resource/Issue Area**

**V-4 Agriculture Resources Related Comments Ranked by Frequency of Comment**

**Table V-4  
Agriculture Resources Related Comments Ranked by Frequency of Comment**

Comment No.	Comment Summary	Group 1	Group 2	Total
1	Consider/evaluate aggressive water conservation now to minimize drought impacts in future years	9	2	11
2	Consider /evaluate Arizona shortage and Lake Mead trigger proposal with 600 KAF delivery reduction		8	8
3	Consider/evaluate apportioning shortages among Priority 4 water users consistent with Law of the River and respective contracts		4	4
4	Consider/evaluate alternative pricing schedules for agricultural water that do not include subsidies and encourage conservation	1	1	2
5	Consider/evaluate benefits and effects of augmentation of Colorado River water supplies pursuant to 1968 Act		2	2
6	Consider/evaluate intra- and interstate sale, lease, transfer, trade or exchange of water within Basin		2	2
7	Consider/evaluate plan that limits releases from Lake Powell to 7.5 MAFY	2		2
8	Conduct and accurate evaluation of long-term costs and socioeconomic impacts associated with land fallowing		1	1
9	Consider charging surcharge to agricultural deliveries to fund conservation projects such as converting ditches to pipelines	1		1
10	Consider market-based strategies		1	1
11	Consider/evaluate Arizona's development of more local supplies to reduce reliance on Arizona project canals		1	1
12	Consider/evaluate criteria that would require proportional sharing of short-term shortages to minimize impacts to low priority right holders	1		1
13	Consider/evaluate financial and economic feasibility of long-term fallowing program		1	1
14	Consider/evaluate programs to allow use of mainstem water by forbearance, replacement, or exchange	1		1
15	Consider/evaluate reallocation of water between agricultural and municipal	1		1
16	Consider/evaluate Reclamation's ability to fund a long-term land fallowing program		1	1
17	Consider/evaluate reducing federal subsidies to cotton and sugar cane farmers		1	1
18	Consider/evaluate requiring use of more efficient irrigation practices as means to conserve water	1		1
19	Consider/evaluate shortage criteria that reduces deliveries to all users, other than those with Present Perfected rights, by same percentage amount		1	1
20	Consider/evaluate specific mandatory conservation strategies tied to hydrologic predictions	1		1
21	Consider/evaluate storage losses and required conservation volumes associated with long-term land fallowing programs		1	1
22	Consider/evaluate value of voluntary intra-state fallowing and other arrangements deemed necessary to mitigate impacts resulting from shortages		1	1
23	Evaluate effects on fisheries, threatened and endangered species, and the Lower Colorado River Multiple Species Habitat Conservation Strategy		1	1
24	Evaluate effects on water rights, including Tribal water rights		1	1
25	Opposes development of expensive and complex Reclamation-managed land fallowing program as alternative to protect junior water users		1	1
26	Opposes use of any water and power surcharges to fund Reclamation-managed land fallowing program		1	1
<b>Comments</b>		<b>18</b>	<b>32</b>	<b>50</b>

# **Appendix V**

## **Summary of Issues Raised in Comments Grouped by Resource/Issue Area**

**V-5 Biological Resources Related Comments Ranked by Frequency of Comment**

**Table V-5  
Biological Resources Related Comments Ranked by Frequency of Comment**

Comment No.	Comment Summary	Group 1	Group 2	Total
1	Consider/evaluate costs and benefits of decommissioning Glen Canyon Dam	975	6	981
2	Consider/evaluate costs and benefits of restoring natural flows through Glen and Grand Canyons	29	8	37
3	Consider/evaluate aggressive water conservation now to minimize drought impacts in future years	9	2	11
4	Shortage guidelines and management strategies should all include assumption that Yuma Desalting Plant will be operated at full capacity		6	6
5	Consider/evaluate aggressive tamarisk eradication efforts to conserve water	4		4
6	Consider/evaluate alternative pricing schedules for agricultural water that do not include subsidies and encourage conservation	1	1	2
7	Consider/evaluate intra- and interstate sale, lease, transfer, trade or exchange of water within Basin		2	2
8	Consider/evaluate Lake Mead minimum storage elevation that optimizes water availability for all users & no other elevation protections		2	2
9	Consider/evaluate new water allocation guidelines that protect critical habitats in Grand Canyon and elsewhere.	1	1	2
10	Evaluate effects on the timing and rate of lake turnover		2	2
11	Section 7 consultation needed if reduction in flows below Hoover Dam are more than 1.574 MAF as stated in LCR MSCP BA/BO	2		2
12	Avoid impacts to Glen Canyon Adaptive Management Program event-driven sediment experiments	1		1
13	Avoid impacts to river restoration efforts and endangered species	1		1
14	Challenges claim that decreasing shortages will have positive impact on fish, wildlife or natural areas		1	1
15	Consider market-based strategies		1	1
16	Consider/evaluate benefits and effects of operating Yuma Desalting Plant		1	1
17	Consider/evaluate consistency with and potential impacts to other established programs, i.e. LCRMSCP, Adaptive Mgmt, etc.	1		1
18	Consider/evaluate criteria that restricts reservoir releases when reservoir storage is below 50 percent of capacity	1		1
19	Consider/evaluate effect of annual releases from Glen Canyon Dam on humpback chub	1		1
20	Consider/evaluate effects of the development of the Multi-Species Conservation Plan		1	1
21	Consider/evaluate Glen Canyon Dam Seasonally Adjusted Steady Flow water management strategies to provide warmer release water temperatures to enhance humpback chub conservation	1		1
22	Consider/evaluate minimum Grand Canyon flows of 8,000 cfs for protection of native fish	1		1
23	Consider/evaluate new water allocation guidelines that consider more accurate estimates of natural flow	1		1
24	Consider/evaluate potential impacts to fish and wildlife resources from decreased in-stream flows	1		1
25	Consider/evaluate potential impacts to Mittry Lake Wildlife Area by changed river operations	1		1
26	Consider/evaluate potential impacts to riparian vegetation from declining levels in reservoirs and river	1		1
27	Consider/evaluate potential impacts to sportfish reproduction within mainstem reservoirs	1		1
28	Consider/evaluate potential impacts to Willow Beach National Fish Hatchery as a production facility	1		1
29	Consider/evaluate potential opportunities for improved fish & wildlife management	1		1
30	Consider/evaluate programs to allow use of mainstem water by forbearance, replacement, or exchange	1		1
31	Consider/evaluate role of watershed and soils disturbing activities on Colorado River system		1	1
32	Consider/evaluate start-up and expanded Yuma Desalter Project operations	1		1
33	Consider/evaluate timing of flows into Lake Mead to allow for riparian management at its delta to provide habitat for the endangered southwestern willow flycatcher and other migratory bird species	1		1
34	Consider/evaluate use of Lake Mead as primary flood control facility in system	1		1
35	Evaluate guidelines ability to restore river flows to pre-dam conditions		1	1
<b>Total Comments</b>		<b>1,039</b>	<b>36</b>	<b>1,075</b>

# **Appendix V**

## **Summary of Issues Raised in Comments Grouped by Resource/Issue Area**

**V-6 Cultural Resources Related Comments Ranked by Frequency of Comment**

**Table V-6**  
**Cultural Resources Related Comments Ranked by Frequency of Comment**

Comment No.	Comment Summary	Group 1	Group 2	Total
1	Consider/evaluate protection of cultural resources in Glen Canyon	22	3	25
2	Evaluate effects on water rights, including Tribal water rights		1	1
3	Protect cultural resources in Glen and Grand canyons by discontinuing storage in Lake Powell	1		1
<b>Total Comments</b>		<b>23</b>	<b>4</b>	<b>27</b>

# **Appendix V**

## **Summary of Issues Raised in Comments Grouped by Resource/Issue Area**

**V-7 Energy/Power Resources Related Comments Ranked by Frequency of  
Comment**

**Table V-7**  
**Energy/Power Resources Related Comments Ranked by Frequency of Comment**

Comment No.	Comment Summary	Group 1	Group 2	Total
1	Guidelines and strategies should provide priority to water supply over hydrogeneration		8	8
2	Consider/evaluate strategies that protect minimum power pool elevations at lakes Powell and Mead		4	4
3	Evaluate the impacts to power production and power consumers of all alternatives		4	4
4	Consider/evaluate Lake Mead minimum storage elevation that optimizes water availability for all users & no other elevation protections		2	2
5	Incorporate shortage criteria in the Lower Basin that maintains power generation capacity to Lower Basin customers	1	1	2
6	Balance water and electric needs against environmental requirements		1	1
7	Consider the effect of not protecting power production at both lakes Mead and Powell		1	1
8	Consider Upper Basin releases that enhance storage in Lake Powell to maintain power generation at Glen Canyon	1		1
9	Consider/develop of strategies that maximize power production	1		1
10	Consider/develop of strategies that protect critical water levels at Lake Powell to minimize impacts to stakeholders	1		1
11	Consider/evaluate financial and economic impacts of maintaining elevation of Lake Mead at or above minimum power pool elevation		1	1
12	Consider/evaluate large-scale water lifters for hydroelectric production to increase turbine efficiency		1	1
13	Consider/evaluate legal and contractual requirements for protecting or not protecting minimum power pool elevations at lakes Powell and Mead		1	1
14	Consider/evaluate power conservation program to minimize hydro-peaking releases	1		1
15	Consider/evaluate storage options that maximize power production	1		1
16	Consider/evaluate water conservation effects if replace hydroelectric power with wind and solar generation		1	1
17	Consult with Hoover power contractors and brief them on proposed changes and proposed mitigation prior to adoption of new strategies and guidelines		1	1
18	Criteria should give priority to meeting domestic and agricultural demands over power generation		1	1
19	Develop methods to minimize and fully mitigate any adverse impacts in and to the value of power that Hoover power contracts will receive		1	1
20	Develop plan that maximizes generation of electrical power	1		1
21	Evaluate effects on hydroelectric generation and Lake Mead and Lake Powell equalization requirements		1	1
22	Evaluate methods to mitigate impacts on amount and value of power Hoover Contractors will receive	1		1
23	For all alternatives to be considered, evaluate potential impacts to Hoover power production	1		1
24	For all alternatives to be considered, evaluate potential impacts to power production	1		1
25	Guidelines should not include programs that place involuntary taxes or user fees on water or power users		1	1
26	Opposes power surcharge to protect future marginal power production loss at Hoover Dam		1	1
27	Request that power production be removed from the storage algorithm used to model and determine releases from Lake Powell under Section 602(a)		1	1
<b>Total Comments</b>		<b>10</b>	<b>32</b>	<b>42</b>

# **Appendix V**

## **Summary of Issues Raised in Comments Grouped by Resource/Issue Area**

**V-8 Groundwater Resources Related Comments Ranked by Frequency of  
Comment**

**Table V-8**  
**Groundwater Resources Related Comments Ranked by Frequency of Comment**

Comment No.	Comment Summary	Group 1	Group 2	Total
1	Consider/evaluate transfer of Lake Powell and Lake Mead storage to groundwater aquifers	952	4	956
2	Consider/evaluate benefits and effects of augmentation of Colorado River water supplies pursuant to 1968 Act		2	2
3	Consider/evaluate programs that can augment the available basin supplies, such as cloud seeding, ocean desalination, etc.	1	1	2
4	Consider/evaluate Arizona's development of more local supplies to reduce reliance on Arizona project canals		1	1
5	Consider/evaluate benefits and effects of Lower Basin offstream storage		1	1
6	Consider/evaluate other complimentary programs such as tamarisk removal, cloud seeding, desalination, etc.	1		1
7	Consider/evaluate plan that augments supplies by constructing additional Upper Colorado River water storage capacity	1		1
8	Consider/evaluate programs that augment the water supply to the system		1	1
9	Consider/evaluate programs to allow use of mainstem water by forbearance, replacement, or exchange	1		1
10	Consider/evaluate reducing California's Colorado River water supply and replacing it with sustainable supplies such as ocean desalination		1	1
11	Consider/evaluate storage of surplus supplies in groundwater aquifers, when available	1		1
12	Consider/evaluate storage options that minimize evaporation	1		1
13	Evaluate effects on groundwater from potential transition from surface water use to groundwater use		1	1
<b>Total Comments</b>		<b>958</b>	<b>12</b>	<b>970</b>

# **Appendix V**

## **Summary of Issues Raised in Comments Grouped by Resource/Issue Area**

### **V-9 Hydrology Related Comments Ranked by Frequency of Comment**

**Table V-9**  
**Hydrology Related Comments Ranked by Frequency of Comment**

Comment No.	Comment Summary	Group 1	Group 2	Total
1	Consider/evaluate costs and benefits of decommissioning Glen Canyon Dam	975	6	981
2	Consider/evaluate transfer of Lake Powell and Lake Mead storage to groundwater aquifers	952	4	956
3	Update Compact to reflect the Colorado River's supply limitations and changing societal demands	946	5	951
4	Develop plan that maximizes storage at Lake Mead and minimizes storage at Lake Powell	48	10	58
5	Consider/evaluate costs and benefits of restoring natural flows through Glen and Grand Canyons	29	8	37
6	Consider/evaluate protection of cultural resources in Glen Canyon	22	3	25
7	Consider/evaluate aggressive water conservation now to minimize drought impacts in future years	9	2	11
8	Consider /evaluate Arizona shortage and Lake Mead trigger proposal with 600 KAF delivery reduction		8	8
9	Consider/evaluate flexible criteria that would require consultation with Arizona for reductions in excess of 600 KAF		7	7
10	Consider/evaluate guidelines that require Mexico and Nevada to share in shortages with Arizona		7	7
11	Shortage guidelines and management strategies should all include assumption that Yuma Desalting Plant will be operated at full capacity		6	6
12	Consider/evaluate apportioning shortages among Priority 4 water users consistent with Law of the River and respective contracts		4	4
13	Consider/evaluate guidelines that require Mexico share in shortages		4	4
14	Evaluate requirement of minimum 8.23 maf/year objective release from Lake Powell		4	4
15	Consider/evaluate return of treated wastewater to river to supplement supplies	2	1	3
16	Consider/evaluate alternative pricing schedules for agricultural water that do not include subsidies and encourage conservation	1	1	2
17	Consider/evaluate benefits and effects of augmentation of Colorado River water supplies pursuant to 1968 Act		2	2
18	Consider/evaluate intra- and interstate sale, lease, transfer, trade or exchange of water within Basin		2	2
19	Consider/evaluate Lake Mead minimum storage elevation that optimizes water availability for all users & no other elevation protections		2	2
20	Consider/evaluate new water allocation guidelines that protect critical habitats in Grand Canyon and elsewhere.	1	1	2
21	Consider/evaluate plan that limits releases from Lake Powell to 7.5 MAFY	2		2
22	Consider/evaluate plan that minimizes releases from Lake Powell	2		2
23	Consider/evaluate programs that can augment the available basin supplies, such as cloud seeding, ocean desalination, etc.	1	1	2
24	Consider/evaluate reduced but stable Lake Mead levels to minimize impacts to businesses such as Marinas and tour guides	1	1	2
25	Consider/evaluate specific measures that result in more efficient management of Colorado River water supplies	1	1	2
26	Develop strategies that facilitate transfer of water from senior water rights holder to more junior water users	1	1	2
27	Evaluate effects on the timing and rate of lake turnover		2	2
28	Evaluate impacts on diversions to each Priority water user under varying shortage conditions		2	2
29	Guidelines should be coordinated with anticipated releases from Lake Powell during low reservoir conditions	2		2
30	Adjust the Colorado River System Simulation Model to properly calculate active storage in the Upper Basin		1	1
31	Any new guidelines show help delay likelihood of a Compact Call on the Upper Basin states		1	1
32	Avoid guidelines and strategies that increase risk of shortage in Lower Basin that are not consistent with Law of the River		1	1
33	Avoid impacts to Glen Canyon Adaptive Management Program event-driven sediment experiments	1		1
34	Avoid impacts to river restoration efforts and endangered species	1		1
35	Challenges claim that decreasing shortages will have positive impact on fish, wildlife or natural areas		1	1
36	Consider market-based strategies		1	1
37	Consider use of paleohydrologic data in analysis to provided extended record of hydroclimatic variability	1		1
38	Consider/evaluate altering 602(a) storage parameters		1	1
39	Consider/evaluate alternatives that ensure sufficient flows for boat safety and navigation	1		1
40	Consider/evaluate Arizona's development of more local supplies to reduce reliance on Arizona project canals		1	1
41	Consider/evaluate benefits and effects of Lower Basin offstream storage		1	1
42	Consider/evaluate benefits and effects of operating Yuma Desalting Plant		1	1

**Table V-9  
Hydrology Related Comments Ranked by Frequency of Comment**

Comment No.	Comment Summary	Group 1	Group 2	Total
43	Consider/evaluate conjunctive reservoir management strategies that optimize recreation on lakes Mead and Powell	1		1
44	Consider/evaluate consistency with and potential impacts to other established programs, i.e. LCRMSCP, Adaptive Mgmt, etc.	1		1
45	Consider/evaluate criteria that includes conjunctive management of Lakes Powell and Mead		1	1
46	Consider/evaluate criteria that requires equitable sharing of shortages between Upper and Lower basins	1		1
47	Consider/evaluate criteria that restricts reservoir releases when reservoir storage is below 50 percent of capacity	1		1
48	Consider/evaluate critical water levels on lakes Powell and Mead below which many recreational services would be curtailed altogether	1		1
49	Consider/evaluate delivery reductions that are flexible and responsive to hydrologic conditions	1		1
50	Consider/evaluate effects of the development of the Multi-Species Conservation Plan		1	1
51	Consider/evaluate effects on the ongoing litigation over water supply in the Gunnison River		1	1
52	Consider/evaluate elimination of 14.85 maf storage requirements set forth in Interim 602(a) Storage Guideline for Management of Colorado River		1	1
53	Consider/evaluate financial and economic feasibility of long-term following program		1	1
54	Consider/evaluate Glen Canyon Dam Seasonally Adjusted Steady Flow water management strategies to provide warmer release water temperatures to enhance humpback chub conservation	1		1
55	Consider/evaluate guidelines that trigger drought conditions at Lake Powell when level drops below 3600 feet	1		1
56	Consider/evaluate how higher magnitude shortages would affect the cut-back of rights in the 1929 to 1968 pool of entitlements		1	1
57	Consider/evaluate including effects of climate variability and long-term trends in climate in analysis and future operations	1		1
58	Consider/evaluate Lake Powell levels and flows thru Grand Canyon that benefit spawning and recruitment of razorback suckers as noted in BO for ISG	1		1
59	Consider/evaluate minimum Grand Canyon flows of 8,000 cfs for protection of native fish	1		1
60	Consider/evaluate more stringent methods for determination of "normal" or "surplus" conditions	1		1
61	Consider/evaluate new water allocation guidelines that consider more accurate estimates of natural flow	1		1
62	Consider/evaluate operating measures that consider the full range of reservoir operations, not just low reservoir conditions		1	1
63	Consider/evaluate other complimentary programs such as tamarisk removal, cloud seeding, desalination, etc.	1		1
64	Consider/evaluate plan that augments supplies by constructing additional Upper Colorado River water storage capacity	1		1
65	Consider/evaluate plan that includes interstate water leasing consistent with Colorado River Board of California's 1991 proposal for water leasing	1		1
66	Consider/evaluate plan that includes interstate water leasing consistent with Governor Roy Romer's proposal for the 40 year non-development of part of Colorado's allotted water under the	1		1
67	Consider/evaluate plan that stores more water in Upper Basin reservoirs to reduce evaporation losses	1		1
68	Consider/evaluate potential impacts to fish and wildlife resources from decreased in-stream flows	1		1
69	Consider/evaluate potential impacts to Mittry Lake Wildlife Area by changed river operations	1		1
70	Consider/evaluate potential impacts to operations of Flaming Gorge and Gunnison River	1		1
71	Consider/evaluate potential impacts to other off-stream reservoirs such as Alamo Dam and Lake Pleasant	1		1
72	Consider/evaluate potential impacts to water supply intake pumps resulting from future reduced in-stream flows	1		1
73	Consider/evaluate programs that augment the water supply to the system		1	1
74	Consider/evaluate programs to allow use of mainstem water by forbearance, replacement, or exchange	1		1
75	Consider/evaluate Reclamation's ability to fund a long-term land following program		1	1
76	Consider/evaluate reducing California's Colorado River water supply and replacing it with sustainable supplies such as ocean desalination		1	1
77	Consider/evaluate replacing Southern California's Colorado River water supply with water from Northern California		1	1
78	Consider/evaluate reservoir management strategy that would store water in headwater reservoirs as long as possible	1		1
79	Consider/evaluate role of watershed and soils disturbing activities on Colorado River system		1	1

**Table V-9**  
**Hydrology Related Comments Ranked by Frequency of Comment**

Comment No.	Comment Summary	Group 1	Group 2	Total
80	Consider/evaluate shortage criteria that reduces deliveries to all users, other than those with Present Perfected rights, by same percentage amount		1	1
81	Consider/evaluate socio-economic impact of low levels of lakes Mead and Powell		1	1
82	Consider/evaluate specific mandatory conservation strategies tied to hydrologic predictions	1		1
83	Consider/evaluate start-up and expanded Yuma Desalter Project operations	1		1
84	Consider/evaluate storage losses and required conservation volumes associated with long-term land following programs		1	1
85	Consider/evaluate storage of surplus supplies in groundwater aquifers, when available	1		1
86	Consider/evaluate storage options that minimize evaporation	1		1
87	Consider/evaluate strategies that establish critical water levels at lakes Mead and Powell	1		1
88	Consider/evaluate strategies that manage Lake Powell and Mead water levels to protect Las Vegas' water supply		1	1
89	Consider/evaluate strategies that provide for equitable sharing of shortages between parties to international treaties	1		1
90	Consider/evaluate top water storage of users unused entitlement as opposed to re-allocation to other users		1	1
91	Consider/evaluate Upper Basin delivery schedules that allow releases less than 8.23 maf/year from Lake Powell	1		1
92	Consider/evaluate use of Lake Mead as primary flood control facility in system	1		1
93	Consider/evaluate value of voluntary intra-state following and other arrangements deemed necessary to mitigate impacts resulting from shortages		1	1
94	Criteria should assure 7.5 maf delivery to the Lower Basin		1	1
95	Develop and use accurate Upper Basin depletions and projected new depletions for use in calculating 602(a) storage requirements		1	1
96	Develop basin-wide conjunction water supply management program that considers all sources of supply		1	1
97	Development of shortage guidelines should consider protection of elevations that will allow SNWA intakes to function		1	1
98	Evaluate current planned equalization triggers and criteria used to calculate upper basin storage		1	1
99	Evaluate effects on dilution of perchlorate entering Lake Mead from Henderson, Nevada via Las Vegas Wash		1	1
100	Evaluate effects on flood control		1	1
101	Evaluate effects on groundwater from potential transition from surface water use to groundwater use		1	1
102	Evaluate effects on recreation, such as rafting in the Grand Canyon, fishing, and visual effects of reservoir draw-downs		1	1
103	Evaluate effects on the Southern Nevada Water Authority's drinking water supply and its intakes		1	1
104	Evaluate effects on water rights, including Tribal water rights		1	1
105	Evaluate effects on water supply diversion quantities and schedules		1	1
106	Evaluate effects that guidelines may have on urban areas		1	1
107	Evaluate guidelines ability to restore river flows to pre-dam conditions		1	1
108	Opposes development of expensive and complex Reclamation-managed land following program as alternative to protect junior water users		1	1
109	Opposes use of any water and power surcharges to fund Reclamation-managed land following program		1	1
110	Request that power production be removed from the storage algorithm used to model and determine releases from Lake Powell under Section 602(a)		1	1
111	Reservoir operating guidelines should benefit both Upper and Lower Basins		1	1
112	Undertake a complete review of Section 602(a) of the Colorado River Basin Project Act of 1968		1	1
113	Undertake a complete review of the storage algorithm used to model and determine releases from Lake Powell under Section 602(a)		1	1
<b>Total Comments</b>		<b>3,032</b>	<b>142</b>	<b>3,174</b>

# **Appendix V**

## **Summary of Issues Raised in Comments Grouped by Resource/Issue Area**

**V-10 Land Use/Planning Related Comments Ranked by Frequency of Comment**

**Table V-10  
Land Use / Planning Related Comments Ranked by Frequency of Comment**

Comment No.	Comment Summary	Group 1	Group 2	Total
1	Consider/evaluate guidelines that require Mexico and Nevada to share in shortages with Arizona		7	7
2	Consider/evaluate apportioning shortages among Priority 4 water users consistent with Law of the River and respective contracts		4	4
3	Consider/evaluate guidelines that require Mexico share in shortages		4	4
4	Consider/evaluate managing new housing development as means to manage water demands	4		4
5	Consider/evaluate benefits and effects of augmentation of Colorado River water supplies pursuant to 1968 Act		2	2
6	Consider/evaluate intra- and interstate sale, lease, transfer, trade or exchange of water within Basin		2	2
7	Consider/evaluate requiring use of artificial grass to conserve water	2		2
8	Consider/evaluate restrictions on outdoor water features to conserve water	1	1	2
9	Develop strategies that facilitate transfer of water from senior water rights holder to more junior water users	1	1	2
10	Evaluate impacts on diversions to each Priority water user under varying shortage conditions		2	2
11	Conduct and accurate evaluation of long-term costs and socioeconomic impacts associated with land fallowing		1	1
12	Consider market-based strategies		1	1
13	Consider/evaluate Arizona's development of more local supplies to reduce reliance on Arizona project canals		1	1
14	Consider/evaluate benefits and effects of Lower Basin offstream storage		1	1
15	Consider/evaluate criteria that limits population and housing growth and increases in-stream-flows	1		1
16	Consider/evaluate financial and economic feasibility of long-term fallowing program		1	1
17	Consider/evaluate reallocation of water between agricultural and municipal	1		1
18	Consider/evaluate Reclamation's ability to fund a long-term land fallowing program		1	1
19	Consider/evaluate role of watershed and soils disturbing activities on Colorado River system		1	1
20	Consider/evaluate storage losses and required conservation volumes associated with long-term land fallowing programs		1	1
21	Consider/evaluate value of voluntary intra-state fallowing and other arrangements deemed necessary to mitigate impacts resulting from shortages		1	1
22	Consider/evaluate water conservation effect of alternative rebate programs to convert turf to desert landscape		1	1
23	Criteria should maintain current apportionment to assure state's future development project needs	1		1
24	Evaluate effect of livestock and grazed areas on runoff and sediment		1	1
25	Evaluate effects on water rights, including Tribal water rights		1	1
26	Evaluate effects that guidelines may have on urban areas		1	1
27	Opposes development of expensive and complex Reclamation-managed land fallowing program as alternative to protect junior water users		1	1
28	Opposes use of any water and power surcharges to fund Reclamation-managed land fallowing program		1	1
<b>Total Comments</b>		<b>11</b>	<b>38</b>	<b>49</b>

# **Appendix V**

## **Summary of Issues Raised in Comments Grouped by Resource/Issue Area**

**V-11 Mitigation/Monitoring Related Comments Ranked by Frequency of Comment**

**Table V-11**  
**Mitigation / Monitoring Related Comments Ranked by Frequency of Comment**

Comment No.	Comment Summary	Group 1	Group 2	Total
1	Consider/evaluate benefits and effects of Lower Basin offstream storage		1	1
2	Consider/evaluate consistency with and potential impacts to other established programs, i.e. LCRMSCP, Adaptive Mgmt, etc.	1		1
3	Consider/evaluate financial and economic feasibility of long-term fallowing program		1	1
4	Consider/evaluate Reclamation's ability to fund a long-term land fallowing program		1	1
5	Consider/evaluate role of watershed and soils disturbing activities on Colorado River system		1	1
6	Consider/evaluate storage losses and required conservation volumes associated with long-term land fallowing programs		1	1
7	Consider/evaluate value of voluntary intra-state fallowing and other arrangements deemed necessary to mitigate impacts resulting from shortages		1	1
8	Develop monitoring and accounting systems to evaluate impacts of shortages		1	1
9	Evaluate effect of livestock and grazed areas on runoff and sediment		1	1
<b>Total Comments</b>		<b>1</b>	<b>8</b>	<b>9</b>

# **Appendix V**

## **Summary of Issues Raised in Comments Grouped by Resource/Issue Area**

**V-12 Population/Housing Related Comments Ranked by Frequency of Comment**

**Table V-12**  
**Population / Housing Related Comments Ranked by Frequency of Comment**

Comment No.	Comment Summary	Group 1	Group 2	Total
1	Consider/evaluate managing new housing development as means to manage water demands	4		4
2	Consider/evaluate benefits and effects of augmentation of Colorado River water supplies pursuant to 1968 Act		2	2
3	Consider/evaluate intra- and interstate sale, lease, transfer, trade or exchange of water within Basin		2	2
4	Develop strategies that facilitate transfer of water from senior water rights holder to more junior water users	1	1	2
5	Conduct and accurate evaluation of long-term costs and socioeconomic impacts associated with land fallowing		1	1
6	Consider/evaluate Arizona's development of more local supplies to reduce reliance on Arizona project canals		1	1
7	Consider/evaluate criteria that limits population and housing growth and increases in-stream-flows	1		1
8	Consider/evaluate impacts to local and regional economies along the Colorado River	1		1
9	Consider/evaluate plan that includes interstate water leasing consistent with Colorado River Board of California's 1991 proposal for water leasing	1		1
10	Consider/evaluate plan that includes interstate water leasing consistent with Governor Roy Romer's proposal for the 40 year non-development of part of Colorado's allotted water under the	1		1
11	Consider/evaluate reallocation of water between agricultural and municipal	1		1
12	Criteria should maintain current apportionment to assure state's future development project needs	1		1
13	Evaluate effects on water rights, including Tribal water rights		1	1
14	Evaluate effects that guidelines may have on urban areas		1	1
<b>Total Comments</b>		<b>11</b>	<b>9</b>	<b>20</b>

# **Appendix V**

## **Summary of Issues Raised in Comments Grouped by Resource/Issue Area**

**V-13 Public Services Related Comments Ranked by Frequency of Comment**

**Table V-13  
Public Services Related Comments Ranked by Frequency of Comment**

Comment No.	Comment Summary	Group 1	Group 2	Total
1	Guidelines and strategies should provide priority to water supply over hydrogeneration		8	8
2	Consider/evaluate strategies that protect minimum power pool elevations at lakes Powell and Mead		4	4
3	Evaluate the impacts to power production and power consumers of all alternatives		4	4
4	Consider/evaluate criteria that avoids impacts to reliability to Tribe's CAP water	3		3
5	Incorporate shortage criteria in the Lower Basin that maintains power generation capacity to Lower Basin customers	1	1	2
6	Consider/evaluate benefits and effects of augmentation of Colorado River water supplies pursuant to 1968 Act		2	2
7	Consider/evaluate intra- and interstate sale, lease, transfer, trade or exchange of water within Basin		2	2
8	Balance water and electric needs against environmental requirements		1	1
9	Clarify the post-1968 non-Central Arizona Project rights in Arizona and the post-1968 rights in Nevada in order to determine how shortages will be distributed among the post-1968 entitlements		1	1
10	Consider the effect of not protecting power production at both lakes Mead and Powell		1	1
11	Consider Upper Basin releases that enhance storage in Lake Powell to maintain power generation at Glen Canyon	1		1
12	Consider/develop of strategies that maximize power production	1		1
13	Consider/develop of strategies that protect critical water levels at Lake Powell to minimize impacts to stakeholders	1		1
14	Consider/evaluate Arizona's development of more local supplies to reduce reliance on Arizona project canals		1	1
15	Consider/evaluate criteria that include two levels of shortage determination, first affects CAP deliveries, and affects other Lower Basin State deliveries	1		1
16	Consider/evaluate financial and economic impacts of maintaining elevation of Lake Mead at or above minimum power pool elevation		1	1
17	Consider/evaluate impacts on NPS units along Colorado River	1		1
18	Consider/evaluate legal and contractual requirements for protecting or not protecting minimum power pool elevations at lakes Powell and Mead		1	1
19	Consider/evaluate potential impacts to boating and fishing	1		1
20	Consider/evaluate power conservation program to minimize hydro-peaking releases	1		1
21	Consider/evaluate storage options that maximize power production	1		1
22	Consider/evaluate value of voluntary intra-state fallowing and other arrangements deemed necessary to mitigate impacts resulting from shortages		1	1
23	Consider/evaluate water conservation effects if replace hydroelectric power with wind and solar generation		1	1
24	Consult with Hoover power contractors and brief them on proposed changes and proposed mitigation prior to adoption of new strategies and guidelines		1	1
25	Criteria should give priority to meeting domestic and agricultural demands over power generation		1	1
26	Develop methods to minimize and fully mitigate any adverse impacts in and to the value of power that Hoover power contracts will receive		1	1
27	Develop plan that accommodates recreational industry	1		1
28	Develop plan that maximizes generation of electrical power	1		1
29	Evaluate effects on hydroelectric generation and Lake Mead and Lake Powell equalization requirements		1	1
30	Evaluate methods to mitigate impacts on amount and value of power Hoover Contractors will receive	1		1
31	For all alternatives to be considered, evaluate potential impacts to Hoover power production	1		1
32	For all alternatives to be considered, evaluate potential impacts to power production	1		1
33	Guidelines should not include programs that place involuntary taxes or user fees on water or power users		1	1
34	Maximize storage at Lake Mead to maximize power production at Hoover Dam and make up lost power production capacity at Glen Canyon Dam	1		1
35	Opposes power surcharge to protect future marginal power production loss at Hoover Dam		1	1
36	Opposes use of any water and power surcharges to fund Reclamation-managed land fallowing program		1	1
<b>Total Comments</b>		<b>18</b>	<b>36</b>	<b>54</b>

# **Appendix V**

## **Summary of Issues Raised in Comments Grouped by Resource/Issue Area**

**V-14 Recreation Related Comments Ranked by Frequency of Comment**

**Table V-14**  
**Recreation Related Comments Ranked by Frequency of Comment**

Comment No.	Comment Summary	Group 1	Group 2	Total
1	Consider/evaluate costs and benefits of decommissioning Glen Canyon Dam	975	6	981
2	Develop plan that maximizes storage at Lake Mead and minimizes storage at Lake Powell	48	10	58
3	Evaluate both direct and indirect environmental and economic impacts to river and all water users		3	3
4	Consider/evaluate Lake Mead minimum storage elevation that optimizes water availability for all users & no other elevation protections		2	2
5	Consider/evaluate reduced but stable Lake Mead levels to minimize impacts to businesses such as Marinas and tour guides	1	1	2
6	Consider/evaluate alternatives that ensure sufficient flows for boat safety and navigation	1		1
7	Consider/evaluate conjunctive reservoir management strategies that optimize recreation on lakes Mead and Powell	1		1
8	Consider/evaluate critical water levels on lakes Powell and Mead below which many recreational services would be curtailed altogether	1		1
9	Consider/evaluate eliminating boating on Lake Mead to protect water quality from fuel spills	1		1
10	Consider/evaluate impacts on NPS units along Colorado River	1		1
11	Consider/evaluate impacts on recreation and tourism along the Colorado River	1		1
12	Consider/evaluate potential impacts to boating and fishing	1		1
13	Consider/evaluate potential impacts to recreation on Grand Canyon National Park and Glen Canyon National Recreation Area	1		1
14	Consider/evaluate potential impacts to recreation on lakes Mead and Powell	1		1
15	Consider/evaluate potential impacts to sport fish reproduction within mainstem reservoirs	1		1
16	Consider/evaluate socio-economic impact of low levels of lakes Mead and Powell		1	1
17	Develop plan that accommodates recreational industry	1		1
18	Evaluate effects on recreation, such as rafting in the Grand Canyon, fishing, and visual effects of reservoir draw-downs		1	1
19	Evaluate guidelines ability to restore river flows to pre-dam conditions		1	1
<b>Total Comments</b>		<b>1,035</b>	<b>25</b>	<b>1,060</b>

# **Appendix V**

## **Summary of Issues Raised in Comments Grouped by Resource/Issue Area**

**V-15 Reservoir Management Related Comments Ranked by Frequency of  
Comment**

**Table V-15  
Reservoir Management Related Comments Ranked by Frequency of Comment**

Comment No.	Comment Summary	Group 1	Group 2	Total
1	Consider/evaluate costs and benefits of decommissioning Glen Canyon Dam	975	6	981
2	Consider/evaluate sustainable sediment management program for Lake Powell and Lake Mead	947	9	956
3	Consider/evaluate transfer of Lake Powell and Lake Mead storage to groundwater aquifers	952	4	956
4	Develop plan that maximizes storage at Lake Mead and minimizes storage at Lake Powell	48	10	58
5	Consider/evaluate costs and benefits of restoring natural flows through Glen and Grand Canyons	29	8	37
6	Consider/evaluate protection of cultural resources in Glen Canyon	22	3	25
7	Opposes decommissioning of Glen Canyon Dam	14		14
8	Consider /evaluate Arizona shortage and Lake Mead trigger proposal with 600 KAF delivery reduction		8	8
9	Guidelines and strategies should provide priority to water supply over hydrogeneration		8	8
10	Consider/evaluate flexible criteria that would require consultation with Arizona for reductions in excess of 600 KAF		7	7
11	Consider/evaluate efficiency of storage system based on reality of increased demand and decreased supply	6		6
12	Consider/evaluate strategies that protect minimum power pool elevations at lakes Powell and Mead		4	4
13	Evaluate requirement of minimum 8.23 maf/year objective release from Lake Powell		4	4
14	Operation of Lakes Powell and Mead must be consistent with the Law of the River		4	4
15	Consider/evaluate reduced but stable Lake Mead levels to minimize impacts to businesses such as Marinas and tour guides	1	1	2
16	Consider/evaluate specific measures that result in more efficient management of Colorado River water supplies	1	1	2
17	Incorporate shortage criteria in the Lower Basin that maintains power generation capacity to Lower Basin customers	1	1	2
18	Consider/evaluate plan that limits releases from Lake Powell to 7.5 MAFY	2		2
19	Consider/evaluate plan that minimizes releases from Lake Powell	2		2
20	Guidelines should be coordinated with anticipated releases from Lake Powell during low reservoir conditions	2		2
21	Section 7 consultation needed if reduction in flows below Hoover Dam are more than 1.574 MAF as stated in LCR MSCP BA/BO	2		2
22	Strategies should maximize the protection afforded to the Upper Basin by Lake Powell	2		2
23	Consider/evaluate Lake Mead minimum storage elevation that optimizes water availability for all users & no other elevation protections		2	2
24	Evaluate effects on lake water quality		2	2
25	Evaluate effects on the timing and rate of lake turnover		2	2
26	Adjust the Colorado River System Simulation Model to properly calculate active storage in the Upper Basin		1	1
27	Any new guidelines show help delay likelihood of a Compact Call on the Upper Basin states		1	1
28	Avoid impacts to Glen Canyon Adaptive Management Program event-driven sediment experiments	1		1
29	Consider the effect of not protecting power production at both lakes Mead and Powell		1	1
30	Consider Upper Basin releases that enhance storage in Lake Powell to maintain power generation at Glen Canyon	1		1
31	Consider/develop of strategies that maximize power production	1		1
32	Consider/develop of strategies that protect critical water levels at Lake Powell to minimize impacts to stakeholders	1		1
33	Consider/evaluate altering 602(a) storage parameters		1	1
34	Consider/evaluate alternatives that ensure sufficient flows for boat safety and navigation	1		1
35	Consider/evaluate benefits and effects of Lower Basin offstream storage		1	1
36	Consider/evaluate conjunctive reservoir management strategies that optimize recreation on lakes Mead and Powell	1		1
37	Consider/evaluate criteria that includes conjunctive management of Lakes Powell and Mead		1	1
38	Consider/evaluate criteria that requires equitable sharing of shortages between Upper and Lower basins	1		1
39	Consider/evaluate criteria that restricts reservoir releases when reservoir storage is below 50 percent of capacity	1		1
40	Consider/evaluate critical water levels on lakes Powell and Mead below which many recreational services would be curtailed altogether	1		1
41	Consider/evaluate delivery reductions that are flexible and responsive to hydrologic conditions	1		1

**Table V-15  
Reservoir Management Related Comments Ranked by Frequency of Comment**

Comment No.	Comment Summary	Group 1	Group 2	Total
42	Consider/evaluate effect of annual releases from Glen Canyon Dam on humpback chub	1		1
43	Consider/evaluate eliminating boating on Lake Mead to protect water quality from fuel spills	1		1
44	Consider/evaluate elimination of 14.85 maf storage requirements set forth in Interim 602(a) Storage Guideline for Management of Colorado River		1	1
45	Consider/evaluate financial and economic impacts of maintaining elevation of Lake Mead at or above minimum power pool elevation		1	1
46	Consider/evaluate Glen Canyon Dam Seasonally Adjusted Steady Flow water management strategies to provide warmer release water temperatures to enhance humpback chub conservation	1		1
47	Consider/evaluate guidelines that trigger drought conditions at Lake Powell when level drops below 3600 feet	1		1
48	Consider/evaluate Lake Powel levels and flows thru Grand Canyon that benefit spawning and recruitment of razorback suckers as noted in BO for ISG	1		1
49	Consider/evaluate legal and contractual requirements for protecting or not protecting minimum power pool elevations at lakes Powell and Mead		1	1
50	Consider/evaluate mechanism that permits suspension of shortage declaration if hydrologic conditions indicate that Lake Powell elevations may rise and reach equalization elevations		1	1
51	Consider/evaluate minimum Grand Canyon flows of 8,000 cfs for protection of native fish	1		1
52	Consider/evaluate operating measures that consider the full range of reservoir operations, not just low reservoir conditions		1	1
53	Consider/evaluate plan that augments supplies by constructing additional Upper Colorado River water storage capacity	1		1
54	Consider/evaluate plan that stores more water in Upper Basin reservoirs to reduce evaporation losses	1		1
55	Consider/evaluate potential impacts to operations of Flaming Gorge and Gunnison River	1		1
56	Consider/evaluate potential impacts to other off-stream reservoirs such as Alamo Dam and Lake Pleasant	1		1
57	Consider/evaluate potential impacts to recreation on lakes Mead and Powell	1		1
58	Consider/evaluate potential impacts to riparian vegetation from declining levels in reservoirs and river	1		1
59	Consider/evaluate potential impacts to sport fish reproduction within mainstem reservoirs	1		1
60	Consider/evaluate potential opportunities for improved fish & wildlife management	1		1
61	Consider/evaluate reconstruction of Glen Canyon Dam to be made structurally safer	1		1
62	Consider/evaluate reservoir management strategy that would store water in headwater reservoirs as long as possible	1		1
63	Consider/evaluate socio-economic impact of low levels of lakes Mead and Powell		1	1
64	Consider/evaluate storage of surplus supplies in groundwater aquifers, when available	1		1
65	Consider/evaluate storage options that maximize power production	1		1
66	Consider/evaluate storage options that minimize evaporation	1		1
67	Consider/evaluate strategies that establish critical water levels at lakes Mead and Powell	1		1
68	Consider/evaluate strategies that manage Lake Powell and Mead water levels to protect Las Vegas' water supply		1	1
69	Consider/evaluate strategies that provide for equitable sharing of shortages between parties to international treaties	1		1
70	Consider/evaluate top water storage of users unused entitlement as opposed to re-allocation to other users		1	1
71	Consider/evaluate Upper Basin delivery schedules that allow releases less than 8.23 maf/year from Lake Powell	1		1
72	Consider/evaluate use of Lake Mead as primary flood control facility in system	1		1
	Criteria should assure 7.5 maf delivery to the Lower Basin		1	1
	Develop and use accurate Upper Basin depletions and projected new depletions for use in calculating 602(a) storage requirements		1	1
	Develop basin-wide conjunction water supply management program that considers all sources of supply		1	1
	Develop plan that accommodates recreational industry	1		1
	Develop plan that maximizes generation of electrical power	1		1
73	Development of shortage guidelines should consider protection of elevations that will allow SNWA intakes to function		1	1
74	Evaluate current planned equalization triggers and criteria used to calculate upper basin storage		1	1
75	Evaluate effects on dilution of perchlorate entering Lake Mead from Henderson, Nevada via Las		1	1

**Table V-15**  
**Reservoir Management Related Comments Ranked by Frequency of Comment**

Comment No.	Comment Summary	Group 1	Group 2	Total
	Vegas Wash			
76	Evaluate effects on flood control		1	1
77	Evaluate effects on groundwater from potential transition from surface water use to groundwater use		1	1
78	Evaluate effects on hydroelectric generation and Lake Mead and Lake Powell equalization requirements		1	1
79	Evaluate effects on recreation, such as rafting in the Grand Canyon, fishing, and visual effects of reservoir draw-downs		1	1
80	Evaluate effects on salinity, mercury, sediment, radioactive substances and other constituents of Lower Colorado River water		1	1
81	Evaluate effects on sediment movement and impacts on beach replenishment in the Grand Canyon		1	1
82	Evaluate effects on the Southern Nevada Water Authority's drinking water supply and its intakes		1	1
83	Evaluate guidelines ability to restore river flows to pre-dam conditions		1	1
84	Include Lake Powell in management strategies/shortage guidelines	1		1
85	Incorporate shortage criteria in the Lower Basin that minimizes impacts to water quality of low reservoir conditions	1		1
86	Maximize storage at Lake Mead to maximize power production at Hoover Dam and make up lost power production capacity at Glen Canyon Dam	1		1
87	Opposes use of any water and power surcharges to fund Reclamation-managed land following program		1	1
88	Request that power production be removed from the storage algorithm used to model and determine releases from Lake Powell under Section 602(a)		1	1
89	Reservoir operating guidelines should benefit both Upper and Lower Basins		1	1
90	Section 7 consultation needed if develop Glen Canyon Dam monthly or daily release patterns that differ from those specified in the 1995 ROD	1		1
91	Section 7 consultation needed if projected conditions are different than stated in LCR MSCP BA/BO	1		1
92	Section 7 consultation needed if projected Lake Mead elevations are lower than elevations in LCR MSCP BA/BO	1		1
93	Undertake a complete review of Section 602(a) of the Colorado River Basin Project Act of 1968		1	1
94	Undertake a complete review of the storage algorithm used to model and determine releases from Lake Powell under Section 602(a)		1	1
<b>Total Comments</b>		<b>3,047</b>	<b>117</b>	<b>3,164</b>

# **Appendix V**

## **Summary of Issues Raised in Comments Grouped by Resource/Issue Area**

**V-16 Socio-Economics Related Comments Ranked by Frequency of Comment**

**Table V-16  
Socio-economics Related Comments Ranked by Frequency of Comment**

Comment No.	Comment Summary	Group 1	Group 2	Total
1	Consider/evaluate costs and benefits of decommissioning Glen Canyon Dam	975	6	981
2	Consider/evaluate transfer of Lake Powell and Lake Mead storage to groundwater aquifers	952	4	956
3	Update Compact to reflect the Colorado River's supply limitations and changing societal demands	946	5	951
4	Develop plan that maximizes storage at Lake Mead and minimizes storage at Lake Powell	48	10	58
5	Consider/evaluate costs and benefits of restoring natural flows through Glen and Grand Canyons	29	8	37
6	Consider/evaluate aggressive water conservation now to minimize drought impacts in future years	9	2	11
7	Consider/evaluate submitted shortage criteria alternative - "Conservation Before Shortage"	1	7	8
8	Consider /evaluate Arizona shortage and Lake Mead trigger proposal with 600 KAF delivery reduction		8	8
9	Guidelines and strategies should provide priority to water supply over hydrogeneration		8	8
10	Consider/evaluate guidelines that require Mexico and Nevada to share in shortages with Arizona		7	7
11	Shortage guidelines and management strategies should all include assumption that Yuma Desalting Plant will be operated at full capacity		6	6
12	Consider/evaluate aggressive tamarisk eradication efforts to conserve water	4		4
13	Consider/evaluate managing new housing development as means to manage water demands	4		4
14	Consider/evaluate apportioning shortages among Priority 4 water users consistent with Law of the River and respective contracts		4	4
15	Consider/evaluate guidelines that require Mexico share in shortages		4	4
16	Consider/evaluate strategies that protect minimum power pool elevations at lakes Powell and Mead		4	4
17	Evaluate requirement of minimum 8.23 maf/year objective release from Lake Powell		4	4
18	Evaluate the impacts to power production and power consumers of all alternatives		4	4
19	Consider/evaluate criteria that avoids impacts to reliability to Tribe's CAP water	3		3
20	Consider/evaluate ocean desalination water to make up shortages	3		3
21	Consider/evaluate return of treated wastewater to river to supplement supplies	2	1	3
22	Evaluate both direct and indirect environmental and economic impacts to river and all water users		3	3
23	Consider/evaluate plan that limits releases from Lake Powell to 7.5 MAFY	2		2
24	Consider/evaluate plan that minimizes releases from Lake Powell	2		2
25	Consider/evaluate requiring use of artificial grass to conserve water	2		2
26	Guidelines should be premised upon proportionate sharing of shortages by Mexico	2		2
27	Consider/evaluate alternative pricing schedules for agricultural water that do not include subsidies and encourage conservation	1	1	2
28	Consider/evaluate new water allocation guidelines that protect critical habitats in Grand Canyon and elsewhere.	1	1	2
29	Consider/evaluate programs that can augment the available basin supplies, such as cloud seeding, ocean desalination, etc.	1	1	2
30	Consider/evaluate reduced but stable Lake Mead levels to minimize impacts to businesses such as Marinas and tour guides	1	1	2
31	Consider/evaluate restrictions on outdoor water features to conserve water	1	1	2
32	Develop strategies that facilitate transfer of water from senior water rights holder to more junior water users	1	1	2
33	Incorporate shortage criteria in the Lower Basin that maintains power generation capacity to Lower Basin customers	1	1	2
34	Consider/evaluate benefits and effects of augmentation of Colorado River water supplies pursuant to 1968 Act		2	2
35	Consider/evaluate intra- and interstate sale, lease, transfer, trade or exchange of water within Basin		2	2
36	Consider/evaluate Lake Mead minimum storage elevation that optimizes water availability for all users & no other elevation protections		2	2
37	Evaluate impacts on diversions to each Priority water user under varying shortage conditions		2	2
38	Address potential salinity impacts to Mexico water deliveries	1		1
39	All reasonable alternatives need to be analyzed and included in EIS to provide proper advisory document		1	1
40	Balance water and electric needs against environmental requirements		1	1
41	Conduct and accurate evaluation of long-term costs and socioeconomic impacts associated with land following		1	1
42	Consider charging surcharge to agricultural deliveries to fund conservation projects such as converting ditches to pipelines	1		1

**Table V-16**  
**Socio-economics Related Comments Ranked by Frequency of Comment**

Comment No.	Comment Summary	Group 1	Group 2	Total
43	Consider Colorado River Salinity Control Act in analysis		1	1
44	Consider market-based strategies		1	1
45	Consider the effect of not protecting power production at both lakes Mead and Powell		1	1
46	Consider Upper Basin releases that enhance storage in Lake Powell to maintain power generation at Glen Canyon	1		1
47	Consider/develop of strategies that maximize power production	1		1
48	Consider/develop of strategies that protect critical water levels at Lake Powell to minimize impacts to stakeholders	1		1
49	Consider/evaluate Arizona's development of more local supplies to reduce reliance on Arizona project canals		1	1
50	Consider/evaluate benefits and effects of Lower Basin offstream storage		1	1
51	Consider/evaluate benefits and effects of operating Yuma Desalting Plant		1	1
52	Consider/evaluate consistency with and potential impacts to other established programs, i.e. LCRMSCP, Adaptive Mgmt, etc.	1		1
53	Consider/evaluate criteria that include two levels of shortage determination, first affects CAP deliveries, and affects other Lower Basin State deliveries	1		1
54	Consider/evaluate criteria that includes conjunctive management of Lakes Powell and Mead		1	1
55	Consider/evaluate criteria that limits population and housing growth and increases in-stream-flows	1		1
56	Consider/evaluate criteria that requires equitable sharing of shortages between Upper and Lower basins	1		1
57	Consider/evaluate criteria that restricts reservoir releases when reservoir storage is below 50 percent of capacity	1		1
58	Consider/evaluate criteria that would require proportional sharing of short-term shortages to minimize impacts to low priority right holders	1		1
59	Consider/evaluate eliminating boating on Lake Mead to protect water quality from fuel spills	1		1
60	Consider/evaluate financial and economic feasibility of long-term fallowing program		1	1
61	Consider/evaluate financial and economic impacts of maintaining elevation of Lake Mead at or above minimum power pool elevation		1	1
62	Consider/evaluate how higher magnitude shortages would affect the cut-back of rights in he 1929 to 1968 pool of entitlements		1	1
63	Consider/evaluate impacts on NPS units along Colorado River	1		1
64	Consider/evaluate impacts on recreation and tourism along the Colorado River	1		1
65	Consider/evaluate impacts to local and regional economies along the Colorado River	1		1
66	Consider/evaluate large-scale water lifters for hydroelectric production to increase turbine efficiency		1	1
67	Consider/evaluate legal and contractual requirements for protecting or not protecting minimum power pool elevations at lakes Powell and Mead		1	1
68	Consider/evaluate more stringent methods for determination of "normal" or "surplus" conditions	1		1
69	Consider/evaluate new water allocation guidelines that consider more accurate estimates of natural flow	1		1
70	Consider/evaluate other complimentary programs such as tamarisk removal, cloud seeding, desalination, etc.	1		1
71	Consider/evaluate plan that augments supplies by constructing additional Upper Colorado River water storage capacity	1		1
72	Consider/evaluate plan that includes interstate water leasing consistent with Colorado River Board of California's 1991 proposal for water leasing	1		1
73	Consider/evaluate plan that includes interstate water leasing consistent with Governor Roy Romer's proposal for the 40 year non-development of part of Colorado's allotted water under the	1		1
74	Consider/evaluate potential impacts to boating and fishing	1		1
75	Consider/evaluate potential impacts to recreation on Grand Canyon National Park and Glen Canyon National Recreation Area	1		1
76	Consider/evaluate potential impacts to recreation on lakes Mead and Powell	1		1
77	Consider/evaluate potential impacts to water supply intake pumps resulting from future reduced in-stream flows	1		1
78	Consider/evaluate power conservation program to minimize hydro-peaking releases	1		1
79	Consider/evaluate proactive steps to prevent future shortages from occurring	1		1
80	Consider/evaluate programs that augment the water supply to the system		1	1
81	Consider/evaluate programs to allow use of mainstem water by forbearance, replacement, or exchange	1		1

**Table V-16**  
**Socio-economics Related Comments Ranked by Frequency of Comment**

Comment No.	Comment Summary	Group 1	Group 2	Total
82	Consider/evaluate reallocation of water between agricultural and municipal	1		1
83	Consider/evaluate Reclamation's ability to fund a long-term land following program		1	1
84	Consider/evaluate reducing California's Colorado River water supply and replacing it with sustainable supplies such as ocean desalination		1	1
85	Consider/evaluate reducing federal subsidies to cotton and sugar cane farmers		1	1
86	Consider/evaluate replacing Southern California' Colorado River water supply with water from Northern California		1	1
87	Consider/evaluate requiring use of more efficient irrigation practices as means to conserve water	1		1
88	Consider/evaluate reservoir management strategy that would store water in headwater reservoirs as long as possible	1		1
89	Consider/evaluate shortage criteria that reduces deliveries to all users by same percentage amount	1		1
90	Consider/evaluate shortage criteria that reduces deliveries to all users, other than those with Present Perfected rights, by same percentage amount		1	1
91	Consider/evaluate socio-economic impact of low levels of lakes Mead and Powell		1	1
92	Consider/evaluate specific mandatory conservation strategies tied to hydrologic predictions	1		1
93	Consider/evaluate start-up and expanded Yuma Desalter Project operations	1		1
94	Consider/evaluate storage losses and required conservation volumes associated with long-term land following programs		1	1
95	Consider/evaluate storage of surplus supplies in groundwater aquifers, when available	1		1
96	Consider/evaluate storage options that maximize power production	1		1
97	Consider/evaluate strategies that manage Lake Powell and Mead water levels to protect Las Vegas' water supply		1	1
98	Consider/evaluate strategies that protect Federal Reserved Water Rights	1		1
99	Consider/evaluate strategies that provide for equitable sharing of shortages between parties to international treaties	1		1
100	Consider/evaluate Upper Basin delivery schedules that allow releases less than 8.23 maf/year from Lake Powell	1		1
101	Consider/evaluate use of Lake Mead as primary flood control facility in system	1		1
102	Consider/evaluate value of voluntary intra-state following and other arrangements deemed necessary to mitigate impacts resulting from shortages		1	1
103	Consider/evaluate water conservation effect of alternative rebate programs to convert turf to desert landscape		1	1
104	Consider/evaluate water conservation effects if replace hydroelectric power with wind and solar generation		1	1
105	Consult with Hoover power contractors and brief them on proposed changes and proposed mitigation prior to adoption of new strategies and guidelines		1	1
106	Criteria should assure 7.5 maf delivery to the Lower Basin		1	1
107	Criteria should give priority to meeting domestic and agricultural demands over power generation		1	1
108	Criteria should maintain current apportionment to assure state's future development project needs	1		1
109	Develop and implement drought management solutions now to minimize impacts in future years	1		1
110	Develop and use accurate Upper Basin depletions and projected new depletions for use in calculating 602(a) storage requirements		1	1
111	Develop basin-wide conjunction water supply management program that considers all sources of supply		1	1
112	Develop methods to minimize and fully mitigate any adverse impacts in and to the value of power that Hoover power contracts will receive		1	1
113	Develop plan that maximizes generation of electrical power	1		1
114	Development of shortage guidelines should consider protection of elevations that will allow SNWA intakes to function		1	1
115	Evaluate effects on groundwater from potential transition from surface water use to groundwater use		1	1
116	Evaluate effects on hydroelectric generation and Lake Mead and Lake Powell equalization requirements		1	1
117	Evaluate effects on recreation, such as rafting in the Grand Canyon, fishing, and visual effects of reservoir draw-downs		1	1
118	Evaluate effects on the Southern Nevada Water Authority's drinking water supply and its intakes		1	1
119	Evaluate effects on water rights, including Tribal water rights		1	1
120	Evaluate effects that guidelines may have on urban areas		1	1

**Table V-16**  
**Socio-economics Related Comments Ranked by Frequency of Comment**

Comment No.	Comment Summary	Group 1	Group 2	Total
121	Evaluate methods to mitigate impacts on amount and value of power Hoover Contractors will receive	1		1
122	For all alternatives to be considered, evaluate potential impacts to Hoover power production	1		1
123	For all alternatives to be considered, evaluate potential impacts to power production	1		1
124	Guidelines should not include programs that place involuntary taxes or user fees on water or power users		1	1
125	Interim strategies that end before 2017 may impact negotiation of Hoover Service Contracts	1		1
126	Management Strategies should address adverse impacts to water deliveries to Mexico	1		1
127	Maximize storage at Lake Mead to maximize power production at Hoover Dam and make up lost power production capacity at Glen Canyon Dam	1		1
128	NEPA analysis needs to evaluate impacts of the guidelines and strategies collectively with other proposed projects such as bypass flow replacement, operation of YDP, new regulatory storage facilities, etc.		1	1
129	Opposes development of expensive and complex Reclamation-managed land fallowing program as alternative to protect junior water users		1	1
130	Opposes power surcharge to protect future marginal power production loss at Hoover Dam		1	1
131	Opposes use of any water and power surcharges to fund Reclamation-managed land fallowing program		1	1
132	Protect cultural resources in Glen and Grand canyons by discontinuing storage in Lake Powell	1		1
133	Request that power production be removed from the storage algorithm used to model and determine releases from Lake Powell under Section 602(a)		1	1
134	Reservoir operating guidelines should benefit both Upper and Lower Basins		1	1
135	Secretary must account for needs and water rights of Navajo Nation	1		1
136	Shortage guidelines should cover only that group of entitlements that are post-September 30, 1968 in priority		1	1
137	Shortages should be first applied to users with post-1968 entitlements		1	1
138	Undertake a complete review of Section 602(a) of the Colorado River Basin Project Act of 1968		1	1
139	Undertake a complete review of the storage algorithm used to model and determine releases from Lake Powell under Section 602(a)		1	1
<b>Total Comments</b>		<b>3,042</b>	<b>161</b>	<b>3,203</b>

# **Appendix V**

## **Summary of Issues Raised in Comments Grouped by Resource/Issue Area**

**V-17 Transboundary Impacts Related Comment Ranked by Frequency of  
Comment**

**Table V-17**  
**Transboundary Impacts Related Comments Ranked by Frequency of Comment**

Comment No.	Comment Summary	Group 1	Group 2	Total
1	Consider/evaluate submitted shortage criteria alternative - "Conservation Before Shortage"	1	7	8
2	Consider /evaluate Arizona shortage and Lake Mead trigger proposal with 600 KAF delivery reduction		8	8
3	Consider/evaluate flexible criteria that would require consultation with Arizona for reductions in excess of 600 KAF		7	7
4	Consider/evaluate guidelines that require Mexico and Nevada to share in shortages with Arizona		7	7
5	Shortage guidelines and management strategies should all include assumption that Yuma Desalting Plant will be operated at full capacity		6	6
6	Consider/evaluate apportioning shortages among Priority 4 water users consistent with Law of the River and respective contracts		4	4
7	Consider/evaluate guidelines that require Mexico share in shortages		4	4
8	Evaluate requirement of minimum 8.23 maf/year objective release from Lake Powell		4	4
9	Evaluate both direct and indirect environmental and economic impacts to river and all water users		3	3
10	Consider/evaluate plan that limits releases from Lake Powell to 7.5 MAFY	2		2
11	Guidelines should be premised upon proportionate sharing of shortages by Mexico	2		2
12	Consider/evaluate new water allocation guidelines that protect critical habitats in Grand Canyon and elsewhere.	1	1	2
13	Address potential salinity impacts to Mexico water deliveries	1		1
14	Consider Colorado River Salinity Control Act in analysis		1	1
15	Consider/evaluate altering 602(a) storage parameters		1	1
16	Consider/evaluate benefits and effects of operating Yuma Desalting Plant		1	1
17	Consider/evaluate elimination of 14.85 maf storage requirements set forth in Interim 602(a) Storage Guideline for Management of Colorado River		1	1
18	Consider/evaluate potential of new law suit opposing All-American Canal Lining Project	1		1
19	Consider/evaluate start-up and expanded Yuma Desalter Project operations	1		1
20	Consider/evaluate strategies that provide for equitable sharing of shortages between parties to international treaties	1		1
21	Consider/evaluate Upper Basin delivery schedules that allow releases less than 8.23 maf/year from Lake Powell	1		1
22	Criteria should assure 7.5 maf delivery to the Lower Basin		1	1
23	Develop plan consistent with international treaty obligations	1		1
24	Evaluate effects on Treaty obligations with Tribes and Mexico, Biological Opinions, discharge and diversion permits, and other agreements, such as those to restore the Colorado River Delta.		1	1
25	Evaluate effects on general water quality and end uses of water going to Arizona, California, Nevada, and Mexico		1	1
26	Include language in Management Strategies stating that IBWC Minute No. 242 will not be changed	1		1
27	Management Strategies should address adverse impacts to water deliveries to Mexico	1		1
28	Request consultation with Mexico to explain NEPA process and potential impacts on water quantity and quality to Mexico deliveries	1		1
29	Request that power production be removed from the storage algorithm used to model and determine releases from Lake Powell under Section 602(a)		1	1
29	Reservoir operating guidelines should benefit both Upper and Lower Basins		1	1
30	Undertake a complete review of Section 602(a) of the Colorado River Basin Project Act of 1968		1	1
31	Undertake a complete review of the storage algorithm used to model and determine releases from Lake Powell under Section 602(a)		1	1
32	Update reference to drought or the allocation of waters between the U.S. and Mexico consistent with terminology used in 1944 Water Treaty	1		1

<b>Total Comments</b>	<b>16</b>	<b>62</b>	<b>78</b>
-----------------------	-----------	-----------	-----------

# **Appendix V**

## **Summary of Issues Raised in Comments Grouped by Resource/Issue Area**

**V-18 Transportation/Traffic Related Comments Ranked by Frequency of Comment**

**Table V-18**  
**Transportation / Traffic Related Comments Ranked by Frequency of Comment**

Comment No.	Comment Summary	Group 1	Group 2	Total
1	Consider/evaluate reduced but stable Lake Mead levels to minimize impacts to businesses such as Marinas and tour guides	1	1	2
2	Consider/evaluate alternatives that ensure sufficient flows for boat safety and navigation	1		1
3	Consider/evaluate conjunctive reservoir management strategies that optimize recreation on lakes Mead and Powell	1		1
4	Consider/evaluate criteria that limits population and housing growth and increases in-stream-flows	1		1
5	Consider/evaluate critical water levels on lakes Powell and Mead below which many recreational services would be curtailed altogether	1		1
6	Consider/evaluate eliminating boating on Lake Mead to protect water quality from fuel spills	1		1
7	Consider/evaluate impacts on recreation and tourism along the Colorado River	1		1
8	Consider/evaluate potential impacts to boating and fishing	1		1
9	Consider/evaluate potential impacts to recreation on Grand Canyon National Park and Glen Canyon National Recreation Area	1		1
10	Consider/evaluate potential impacts to recreation on lakes Mead and Powell	1		1
<b>Total Comments</b>		<b>10</b>	<b>1</b>	<b>11</b>

# **Appendix V**

## **Summary of Issues Raised in Comments Grouped by Resource/Issue Area**

**V-19 Water Supply/Quantity Related Comments Ranked by Frequency of  
Comment**

**Table V-19**  
**Water Supply / Quantity Related Comments Ranked by Frequency of Comment**

Comment No.	Comment Summary	Group 1	Group 2	Total
1	Consider/evaluate costs and benefits of decommissioning Glen Canyon Dam	975	6	981
2	Consider/evaluate transfer of Lake Powell and Lake Mead storage to groundwater aquifers	952	4	956
3	Update Compact to reflect the Colorado River's supply limitations and changing societal demands	946	5	951
4	Develop plan that maximizes storage at Lake Mead and minimizes storage at Lake Powell	48	10	58
5	Consider/evaluate costs and benefits of restoring natural flows through Glen and Grand Canyons	29	8	37
6	Opposes decommissioning of Glen Canyon Dam	14		14
7	Consider/evaluate aggressive water conservation now to minimize drought impacts in future years	9	2	11
8	Consider/evaluate submitted shortage criteria alternative - "Conservation Before Shortage"	1	7	8
9	Consider /evaluate Arizona shortage and Lake Mead trigger proposal with 600 KAF delivery reduction		8	8
10	Guidelines and strategies should provide priority to water supply over hydrogeneration		8	8
11	Consider/evaluate flexible criteria that would require consultation with Arizona for reductions in excess of 600 KAF		7	7
12	Consider/evaluate guidelines that require Mexico and Nevada to share in shortages with Arizona		7	7
13	Consider/evaluate efficiency of storage system based on reality of increased demand and decreased supply	6		6
14	Consider/evaluate aggressive tamarisk eradication efforts to conserve water	4		4
15	Consider/evaluate managing new housing development as means to manage water demands	4		4
16	Affected water users and respective State should be allowed to determine how to manage shortages within respective state		4	4
17	Consider/evaluate apportioning shortages among Priority 4 water users consistent with Law of the River and respective contracts		4	4
18	Consider/evaluate guidelines that require Mexico share in shortages		4	4
19	Evaluate requirement of minimum 8.23 maf/year objective release from Lake Powell		4	4
20	Consider/evaluate criteria that avoids impacts to reliability to Tribe's CAP water	3		3
21	Consider/evaluate ocean desalination water to make up shortages	3		3
22	Consider/evaluate return of treated wastewater to river to supplement supplies	2	1	3
23	Consider/evaluate plan that limits releases from Lake Powell to 7.5 MAFY	2		2
24	Consider/evaluate plan that minimizes releases from Lake Powell	2		2
25	Consider/evaluate requiring use of artificial grass to conserve water	2		2
26	Guidelines should be premised upon proportionate sharing of shortages by Mexico	2		2
27	Consider/evaluate alternative pricing schedules for agricultural water that do not include subsidies and encourage conservation	1	1	2
28	Consider/evaluate new water allocation guidelines that protect critical habitats in Grand Canyon and elsewhere.	1	1	2
29	Consider/evaluate programs that can augment the available basin supplies, such as cloud seeding, ocean desalination, etc.	1	1	2
30	Consider/evaluate restrictions on outdoor water features to conserve water	1	1	2
31	Consider/evaluate specific measures that result in more efficient management of Colorado River water supplies	1	1	2
32	Develop strategies that facilitate transfer of water from senior water rights holder to more junior water users	1	1	2
33	Consider/evaluate benefits and effects of augmentation of Colorado River water supplies pursuant to 1968 Act		2	2
34	Consider/evaluate intra- and interstate sale, lease, transfer, trade or exchange of water within Basin		2	2
35	Consider/evaluate Lake Mead minimum storage elevation that optimizes water availability for all users & no other elevation protections		2	2
36	Evaluate impacts on diversions to each Priority water user under varying shortage conditions		2	2
37	Adjust the Colorado River System Simulation Model to properly calculate active storage in the Upper Basin		1	1
38	Any new guidelines show help delay likelihood of a Compact Call on the Upper Basin states		1	1
39	Balance water and electric needs against environmental requirements		1	1
40	Challenges claim that decreasing shortages will have positive impact on fish, wildlife or natural areas		1	1
41	Clarify the post-1968 non-Central Arizona Project rights in Arizona and the post-1968 rights in Nevada in order to determine how shortages will be distributed among the post-1968 entitlements		1	1

**Table V-19  
Water Supply / Quantity Related Comments Ranked by Frequency of Comment**

Comment No.	Comment Summary	Group 1	Group 2	Total
42	Conduct and accurate evaluation of long-term costs and socioeconomic impacts associated with land fallowing		1	1
43	Consider charging surcharge to agricultural deliveries to fund conservation projects such as converting ditches to pipelines	1		1
44	Consider conservation of water supply consistent with Lakes Mead and Powell authorization laws	1		1
45	Consider market-based strategies		1	1
46	Consider Upper Basin releases that enhance storage in Lake Powell to maintain power generation at Glen Canyon	1		1
47	Consider/evaluate altering 602(a) storage parameters		1	1
48	Consider/evaluate alternatives that ensure sufficient flows for boat safety and navigation	1		1
49	Consider/evaluate Arizona's development of more local supplies to reduce reliance on Arizona project canals		1	1
50	Consider/evaluate benefits and effects of Lower Basin offstream storage		1	1
51	Consider/evaluate benefits and effects of operating Yuma Desalting Plant		1	1
52	Consider/evaluate criteria that include two levels of shortage determination, first affects CAP deliveries, and affects other Lower Basin State deliveries	1		1
53	Consider/evaluate criteria that includes conjunctive management of Lakes Powell and Mead		1	1
54	Consider/evaluate criteria that limits population and housing growth and increases in-stream-flows	1		1
55	Consider/evaluate criteria that requires equitable sharing of shortages between Upper and Lower basins	1		1
56	Consider/evaluate criteria that restricts reservoir releases when reservoir storage is below 50 percent of capacity	1		1
57	Consider/evaluate criteria that would require proportional sharing of short-term shortages to minimize impacts to low priority right holders	1		1
58	Consider/evaluate delivery or diversion restrictions that are imposed in reverse order of priority to protect the rights of holders of senior rights	1		1
59	Consider/evaluate delivery reductions based on actual hydrologic conditions		1	1
60	Consider/evaluate delivery reductions that are flexible and responsive to hydrologic conditions	1		1
61	Consider/evaluate development of contingency plans for equitable distribution of supplies under a shortage flow conditions	1		1
62	Consider/evaluate effect of annual releases from Glen Canyon Dam on humpback chub	1		1
63	Consider/evaluate effects on the ongoing litigation over water supply in the Gunnison River		1	1
64	Consider/evaluate effects that guidelines may have on recently adopted Interim Surplus Guidelines	1		1
65	Consider/evaluate elimination of 14.85 maf storage requirements set forth in Interim 602(a) Storage Guideline for Management of Colorado River		1	1
66	Consider/evaluate financial and economic feasibility of long-term fallowing program		1	1
67	Consider/evaluate financial and economic impacts of maintaining elevation of Lake Mead at or above minimum power pool elevation		1	1
68	Consider/evaluate guidelines that trigger drought conditions at Lake Powell when level drops below 3600 feet	1		1
69	Consider/evaluate how higher magnitude shortages would affect the cut-back of rights in the 1929 to 1968 pool of entitlements		1	1
70	Consider/evaluate including effects of climate variability and long-term trends in climate in analysis and future operations	1		1
71	Consider/evaluate minimum Grand Canyon flows of 8,000 cfs for protection of native fish	1		1
72	Consider/evaluate more stringent methods for determination of "normal" or "surplus" conditions	1		1
73	Consider/evaluate new source of supply that can provide 750,000 acre feet per year, source to be revealed only after commenter proposed contractual arrangements met	1		1
74	Consider/evaluate new water allocation guidelines that consider more accurate estimates of natural flow	1		1
75	Consider/evaluate operating measures that consider the full range of reservoir operations, not just low reservoir conditions		1	1
76	Consider/evaluate other complimentary programs such as tamarisk removal, cloud seeding, desalination, etc.	1		1
77	Consider/evaluate plan that augments supplies by constructing additional Upper Colorado River water storage capacity	1		1
78	Consider/evaluate plan that includes interstate water leasing consistent with Colorado River Board of California's 1991 proposal for water leasing	1		1

**Table V-19  
Water Supply / Quantity Related Comments Ranked by Frequency of Comment**

Comment No.	Comment Summary	Group 1	Group 2	Total
79	Consider/evaluate plan that includes interstate water leasing consistent with Governor Roy Romer's proposal for the 40 year non-development of part of Colorado's allotted water under the	1		1
80	Consider/evaluate plan that stores more water in Upper Basin reservoirs to reduce evaporation losses	1		1
81	Consider/evaluate potential impacts to boating and fishing	1		1
82	Consider/evaluate potential impacts to fish and wildlife resources from decreased in-stream flows	1		1
83	Consider/evaluate potential impacts to Mittry Lake Wildlife Area by changed river operations	1		1
84	Consider/evaluate potential impacts to operations of Flaming Gorge and Gunnison River	1		1
85	Consider/evaluate potential impacts to other off-stream reservoirs such as Alamo Dam and Lake Pleasant	1		1
86	Consider/evaluate potential impacts to water supply intake pumps resulting from future reduced in-stream flows	1		1
87	Consider/evaluate programs that augment the water supply to the system		1	1
88	Consider/evaluate programs to allow use of mainstem water by forbearance, replacement, or exchange	1		1
89	Consider/evaluate reallocation of water between agricultural and municipal	1		1
90	Consider/evaluate Reclamation's ability to fund a long-term land following program		1	1
91	Consider/evaluate reducing California's Colorado River water supply and replacing it with sustainable supplies such as ocean desalination		1	1
92	Consider/evaluate replacing Southern California' Colorado River water supply with water from Northern California		1	1
93	Consider/evaluate requiring use of more efficient irrigation practices as means to conserve water	1		1
94	Consider/evaluate reservoir management strategy that would store water in headwater reservoirs as long as possible	1		1
95	Consider/evaluate role of watershed and soils disturbing activities on Colorado River system		1	1
96	Consider/evaluate shortage criteria that reduces deliveries to all users by same percentage amount	1		1
97	Consider/evaluate shortage criteria that reduces deliveries to all users, other than those with Present Perfected rights, by same percentage amount		1	1
98	Consider/evaluate specific mandatory conservation strategies tied to hydrologic predictions	1		1
99	Consider/evaluate storage losses and required conservation volumes associated with long-term land following programs		1	1
100	Consider/evaluate storage of surplus supplies in groundwater aquifers, when available	1		1
101	Consider/evaluate strategies that manage Lake Powell and Mead water levels to protect Las Vegas' water supply		1	1
102	Consider/evaluate strategies that protect Federal Reserved Water Rights	1		1
103	Consider/evaluate strategies that provide for equitable sharing of shortages between parties to international treaties	1		1
104	Consider/evaluate top water storage of users unused entitlement as opposed to re-allocation to other users		1	1
105	Consider/evaluate Upper Basin delivery schedules that allow releases less than 8.23 maf/year from Lake Powell	1		1
106	Consider/evaluate value of voluntary intra-state following and other arrangements deemed necessary to mitigate impacts resulting from shortages		1	1
107	Consider/evaluate water conservation effect of alternative rebate programs to convert turf to desert landscape		1	1
108	Criteria should assure 7.5 maf delivery to the Lower Basin		1	1
109	Criteria should give priority to meeting domestic and agricultural demands over power generation		1	1
110	Criteria should maintain current apportionment to assure state's future development project needs	1		1
111	Develop and use accurate Upper Basin depletions and projected new depletions for use in calculating 602(a) storage requirements		1	1
112	Develop basin-wide conjunction water supply management program that considers all sources of supply		1	1
113	Develop plan that maximizes beneficial use of the available water for domestic municipal and agricultural in U.S.	1		1
114	Development of shortage guidelines should consider protection of elevations that will allow SNWA intakes to function		1	1
115	Evaluate current planned equalization triggers and criteria used to calculate upper basin storage		1	1

**Table V-19  
Water Supply / Quantity Related Comments Ranked by Frequency of Comment**

Comment No.	Comment Summary	Group 1	Group 2	Total
116	Evaluate effect of livestock and grazed areas on runoff and sediment		1	1
117	Evaluate effects on Treaty obligations with Tribes and Mexico, Biological Opinions, discharge and diversion permits, and other agreements, such as those to restore the Colorado River Delta.		1	1
118	Evaluate effects on groundwater from potential transition from surface water use to groundwater use		1	1
119	Evaluate effects on in-stream water quality and water reaching the Colorado River Delta, including water temperatures and flow fluctuations		1	1
120	Evaluate effects on the Southern Nevada Water Authority's drinking water supply and its intakes		1	1
121	Evaluate effects on water rights, including Tribal water rights		1	1
122	Evaluate effects on water supply diversion quantities and schedules		1	1
123	Evaluate effects that guidelines may have on urban areas		1	1
124	Evaluate guidelines ability to restore river flows to pre-dam conditions		1	1
125	Guidelines should be adopted in a timely manner to augment the water supplies and provide Nevada time to develop additional permanent supplies		1	1
126	Guidelines should be structured to give protection to senior entitlements as established in the 1968 Colorado River Basin Act and 1964 Supreme Court decree		1	1
127	Incorporate shortage criteria in the Lower Basin that recognizes water right priorities	1		1
128	Management Strategies should address adverse impacts to water deliveries to Mexico	1		1
129	NEPA analysis needs to evaluate impacts of the guidelines and strategies collectively with other proposed projects such as bypass flow replacement, operation of YDP, new regulatory storage facilities, etc.		1	1
130	Opposes development of expensive and complex Reclamation-managed land fallowing program as alternative to protect junior water users		1	1
131	Opposes inclusion of Conservation Before Shortage alternative in EIS		1	1
132	Opposes use of any water and power surcharges to fund Reclamation-managed land fallowing program		1	1
133	Re-evaluate how determination of "normal" or "surplus" conditions are made		1	1
134	Request consultation with Mexico to explain NEPA process and potential impacts on water quantity and quality to Mexico deliveries	1		1
135	Request that power production be removed from the storage algorithm used to model and determine releases from Lake Powell under Section 602(a)		1	1
136	Reservoir operating guidelines should benefit both Upper and Lower Basins		1	1
137	Secretary must account for needs and water rights of Navajo Nation	1		1
138	Shortage guidelines should cover only that group of entitlements that are post-September 30, 1968 in priority		1	1
139	Shortages should be first applied to users with post-1968 entitlements		1	1
140	Undertake a complete review of Section 602(a) of the Colorado River Basin Project Act of 1968		1	1
141	Undertake a complete review of the storage algorithm used to model and determine releases from Lake Powell under Section 602(a)		1	1
<b>Total Comments</b>		<b>3,057</b>	<b>161</b>	<b>3,218</b>

# **Appendix V**

## **Summary of Issues Raised in Comments Grouped by Resource/Issue Area**

**V-20 Water Quality Related Comments Ranked by Frequency of Comment**

**Table V-20  
Water Quality Related Comments Ranked by Frequency of Comment**

Comment No.	Comment Summary	Group 1	Group 2	Total
1	Consider/evaluate sustainable sediment management program for Lake Powell and Lake Mead	947	9	956
2	Shortage guidelines and management strategies should all include assumption that Yuma Desalting Plant will be operated at full capacity		6	6
3	Consider/evaluate ocean desalination water to make up shortages	3		3
4	Consider/evaluate return of treated wastewater to river to supplement supplies	2	1	3
5	Consider/evaluate programs that can augment the available basin supplies, such as cloud seeding, ocean desalination, etc.	1	1	2
6	Evaluate effects on lake water quality		2	2
7	Evaluate effects on the timing and rate of lake turnover		2	2
8	Address potential salinity impacts to Mexico water deliveries	1		1
9	Avoid impacts to Glen Canyon Adaptive Management Program event-driven sediment experiments	1		1
10	Consider Colorado River Salinity Control Act in analysis		1	1
11	Consider/evaluate benefits and effects of operating Yuma Desalting Plant		1	1
12	Consider/evaluate effect and impacts to water quality		1	1
13	Consider/evaluate eliminating boating on Lake Mead to protect water quality from fuel spills	1		1
14	Consider/evaluate Glen Canyon Dam Seasonally Adjusted Steady Flow water management strategies to provide warmer release water temperatures to enhance humpback chub conservation	1		1
15	Consider/evaluate Lake Powell levels and flows thru Grand Canyon that benefit spawning and recruitment of razorback suckers as noted in BO for ISG	1		1
16	Consider/evaluate other complimentary programs such as tamarisk removal, cloud seeding, desalination, etc.	1		1
17	Consider/evaluate programs that augment the water supply to the system		1	1
18	Consider/evaluate reducing California's Colorado River water supply and replacing it with sustainable supplies such as ocean desalination		1	1
19	Consider/evaluate role of watershed and soils disturbing activities on Colorado River system		1	1
20	Consider/evaluate shortage criteria that reduces deliveries to all users, other than those with Present Perfected rights, by same percentage amount		1	1
21	Consider/evaluate start-up and expanded Yuma Desalter Project operations	1		1
22	Consider/evaluate water quality impacts below Lake Mead		1	1
23	Develop plan consistent with international treaty obligations	1		1
24	Evaluate effect of livestock and grazed areas on runoff and sediment		1	1
25	Evaluate effects on Treaty obligations with Tribes and Mexico, Biological Opinions, discharge and diversion permits, and other agreements, such as those to restore the Colorado River Delta.		1	1
26	Evaluate effects on dilution of perchlorate entering Lake Mead from Henderson, Nevada via Las Vegas Wash		1	1
27	Evaluate effects on general water quality and end uses of water going to Arizona, California, Nevada, and Mexico		1	1
28	Evaluate effects on in-stream water quality and water reaching the Colorado River Delta, including water temperatures and flow fluctuations		1	1
29	Evaluate effects on salinity, mercury, sediment, radioactive substances and other constituents of Lower Colorado River water		1	1
30	Evaluate effects on sediment movement and impacts on beach replenishment in the Grand Canyon		1	1
31	Evaluate effects on the Southern Nevada Water Authority's drinking water supply and its intakes		1	1
32	Incorporate shortage criteria in the Lower Basin that minimizes impacts to water quality of low reservoir conditions	1		1
33	Management Strategies should address adverse impacts to water deliveries to Mexico	1		1
34	NEPA analysis needs to evaluate impacts of the guidelines and strategies collectively with other proposed projects such as bypass flow replacement, operation of YDP, new regulatory storage facilities, etc.		1	1
35	Request consultation with Mexico to explain NEPA process and potential impacts on water quantity and quality to Mexico deliveries	1		1
<b>Total Comments</b>		<b>964</b>	<b>38</b>	<b>1,002</b>

# **Appendix V**

## **Summary of Issues Raised in Comments Grouped by Resource/Issue Area**

**V-21 Water Rights Related Comments Ranked by Frequency of Comment**

**Table V-21  
Water Rights Related Comments Ranked by Frequency of Comment**

Comment No.	Comment Summary	Group 1	Group 2	Total
1	Consider/evaluate costs and benefits of decommissioning Glen Canyon Dam	975	6	981
2	Consider/evaluate transfer of Lake Powell and Lake Mead storage to groundwater aquifers	952	4	956
3	Update Compact to reflect the Colorado River's supply limitations and changing societal demands	946	5	951
4	Develop plan that maximizes storage at Lake Mead and minimizes storage at Lake Powell	48	10	58
5	Consider/evaluate Arizona shortage and Lake Mead trigger proposal with 600 KAF delivery reduction		8	8
6	Guidelines and strategies should provide priority to water supply over hydrogeneration		8	8
7	Consider/evaluate flexible criteria that would require consultation with Arizona for reductions in excess of 600 KAF		7	7
8	Consider/evaluate guidelines that require Mexico and Nevada to share in shortages with Arizona		7	7
9	Consider/evaluate managing new housing development as means to manage water demands	4		4
10	Consider/evaluate apportioning shortages among Priority 4 water users consistent with Law of the River and respective contracts		4	4
11	Consider/evaluate guidelines that require Mexico share in shortages		4	4
12	Evaluate requirement of minimum 8.23 maf/year objective release from Lake Powell		4	4
13	Consider/evaluate criteria that avoids impacts to reliability to Tribe's CAP water	3		3
14	Consider/evaluate effects that guidelines may have on the Law of the River	1	2	3
15	Consider/evaluate plan that limits releases from Lake Powell to 7.5 MAFY	2		2
16	Consider/evaluate plan that minimizes releases from Lake Powell	2		2
17	Guidelines should be premised upon proportionate sharing of shortages by Mexico	2		2
18	Consider/evaluate new water allocation guidelines that protect critical habitats in Grand Canyon and elsewhere.	1	1	2
19	Develop strategies that facilitate transfer of water from senior water rights holder to more junior water users	1	1	2
20	Consider/evaluate benefits and effects of augmentation of Colorado River water supplies pursuant to 1968 Act		2	2
21	Consider/evaluate intra- and interstate sale, lease, transfer, trade or exchange of water within Basin		2	2
22	Evaluate impacts on diversions to each Priority water user under varying shortage conditions		2	2
23	Any new guidelines show help delay likelihood of a Compact Call on the Upper Basin states		1	1
24	Avoid guidelines and strategies that increase risk of shortage in Lower Basin that are not consistent with Law of the River		1	1
25	Challenges claim that decreasing shortages will have positive impact on fish, wildlife or natural areas		1	1
26	Clarify the post-1968 non-Central Arizona Project rights in Arizona and the post-1968 rights in Nevada in order to determine how shortages will be distributed among the post-1968 entitlements		1	1
27	Consider charging surcharge to agricultural deliveries to fund conservation projects such as converting ditches to pipelines	1		1
28	Consider conservation of water supply consistent with Lakes Mead and Powell authorization laws	1		1
29	Consider market-based strategies		1	1
30	Consider/evaluate altering 602(a) storage parameters		1	1
31	Consider/evaluate benefits and effects of Lower Basin offstream storage		1	1
32	Consider/evaluate criteria that include two levels of shortage determination, first affects CAP deliveries, and affects other Lower Basin State deliveries	1		1
33	Consider/evaluate criteria that limits population and housing growth and increases in-stream-flows	1		1
34	Consider/evaluate criteria that requires equitable sharing of shortages between Upper and Lower basins	1		1
35	Consider/evaluate criteria that restricts reservoir releases when reservoir storage is below 50 percent of capacity	1		1
36	Consider/evaluate criteria that would require proportional sharing of short-term shortages to minimize impacts to low priority right holders	1		1
37	Consider/evaluate delivery or diversion restrictions that are imposed in reverse order of priority to protect the rights of holders of senior rights	1		1
38	Consider/evaluate delivery reductions based on actual hydrologic conditions		1	1
39	Consider/evaluate delivery reductions that are flexible and responsive to hydrologic conditions	1		1
40	Consider/evaluate development of contingency plans for equitable distribution of supplies under a shortage flow conditions	1		1
41	Consider/evaluate effects on the ongoing litigation over water supply in the Gunnison River		1	1

**Table V-21  
Water Rights Related Comments Ranked by Frequency of Comment**

Comment No.	Comment Summary	Group 1	Group 2	Total
42	Consider/evaluate elimination of 14.85 maf storage requirements set forth in Interim 602(a) Storage Guideline for Management of Colorado River		1	1
43	Consider/evaluate guidelines that trigger drought conditions at Lake Powell when level drops below 3600 feet	1		1
44	Consider/evaluate how higher magnitude shortages would affect the cut-back of rights in the 1929 to 1968 pool of entitlements		1	1
45	Consider/evaluate more stringent methods for determination of "normal" or "surplus" conditions	1		1
46	Consider/evaluate new source of supply that can provide 750,000 acre feet per year, source to be revealed only after commenter proposed contractual arrangements met	1		1
47	Consider/evaluate new water allocation guidelines that consider more accurate estimates of natural flow	1		1
48	Consider/evaluate plan that augments supplies by constructing additional Upper Colorado River water storage capacity	1		1
49	Consider/evaluate plan that includes interstate water leasing consistent with Colorado River Board of California's 1991 proposal for water leasing	1		1
50	Consider/evaluate plan that includes interstate water leasing consistent with Governor Roy Romer's proposal for the 40 year non-development of part of Colorado's allotted water under the	1		1
51	Consider/evaluate potential of new law suit opposing All-American Canal Lining Project	1		1
52	Consider/evaluate reallocation of water between agricultural and municipal	1		1
53	Consider/evaluate reducing California's Colorado River water supply and replacing it with sustainable supplies such as ocean desalination		1	1
54	Consider/evaluate replacing Southern California's Colorado River water supply with water from Northern California		1	1
55	Consider/evaluate shortage criteria that reduces deliveries to all users by same percentage amount	1		1
56	Consider/evaluate shortage criteria that reduces deliveries to all users, other than those with Present Perfected rights, by same percentage amount		1	1
57	Consider/evaluate storage of surplus supplies in groundwater aquifers, when available	1		1
58	Consider/evaluate strategies that manage Lake Powell and Mead water levels to protect Las Vegas' water supply		1	1
59	Consider/evaluate strategies that protect Federal Reserved Water Rights	1		1
60	Consider/evaluate strategies that provide for equitable sharing of shortages between parties to international treaties	1		1
61	Consider/evaluate top water storage of users unused entitlement as opposed to re-allocation to other users		1	1
62	Consider/evaluate Upper Basin delivery schedules that allow releases less than 8.23 maf/year from Lake Powell	1		1
63	Criteria should assure 7.5 maf delivery to the Lower Basin		1	1
64	Criteria should give priority to meeting domestic and agricultural demands over power generation		1	1
65	Criteria should maintain current apportionment to assure state's future development project needs	1		1
66	Develop and use accurate Upper Basin depletions and projected new depletions for use in calculating 602(a) storage requirements		1	1
67	Develop basin-wide conjunction water supply management program that considers all sources of supply		1	1
68	Develop plan consistent with international treaty obligations	1		1
69	Develop plan that maximizes beneficial use of the available water for domestic municipal and agricultural in U.S.	1		1
70	Evaluate effects on Treaty obligations with Tribes and Mexico, Biological Opinions, discharge and diversion permits, and other agreements, such as those to restore the Colorado River Delta.		1	1
71	Evaluate effects on groundwater from potential transition from surface water use to groundwater use		1	1
72	Evaluate effects on water rights, including Tribal water rights		1	1
73	Evaluate guidelines ability to restore river flows to pre-dam conditions		1	1
74	Guidelines should be structured to give protection to senior entitlements as established in the 1968 Colorado River Basin Act and 1964 Supreme Court decree		1	1
75	Incorporate shortage criteria in the Lower Basin that recognizes water right priorities	1		1
76	Management Strategies should address adverse impacts to water deliveries to Mexico	1		1
77	Protect cultural resources in Glen and Grand canyons by discontinuing storage in Lake Powell	1		1
78	Request consultation with Mexico to explain NEPA process and potential impacts on water quantity and quality to Mexico deliveries	1		1

**Table V-21**  
**Water Rights Related Comments Ranked by Frequency of Comment**

Comment No.	Comment Summary	Group 1	Group 2	Total
79	Request that power production be removed from the storage algorithm used to model and determine releases from Lake Powell under Section 602(a)		1	1
80	Reservoir operating guidelines should benefit both Upper and Lower Basins		1	1
81	Secretary must account for needs and water rights of Navajo Nation	1		1
82	Shortage guidelines should cover only that group of entitlements that are post-September 30, 1968 in priority		1	1
83	Shortages should be first applied to users with post-1968 entitlements		1	1
84	Undertake a complete review of Section 602(a) of the Colorado River Basin Project Act of 1968		1	1
85	Undertake a complete review of the storage algorithm used to model and determine releases from Lake Powell under Section 602(a)		1	1
86	Update reference to drought or the allocation of waters between the U.S. and Mexico consistent with terminology used in 1944 Water Treaty	1		1
<b>Total Comments</b>		<b>2,970</b>	<b>108</b>	<b>3,078</b>

# **Appendix V**

## **Summary of Issues Raised in Comments Grouped by Resource/Issue Area**

**V-22 Miscellaneous Related Comments Ranked by Frequency of Comment**

**Table V-22  
Miscellaneous Related Comments Ranked by Frequency of Comment**

Comment No.	Comment Summary	Group 1	Group 2	Total
1	Affected water users and respective State should be allowed to determine how to manage shortages within respective state		4	4
2	Request regular consultations with tribe during development of alternatives	3	1	4
3	Request Secretary to assign representative to act as U.S.'s trustee for tribe and provide for direct participation in process	3		3
4	Request that Hoover power contractors be consulted on any changes or potential impacts relating to Hoover power production	1	2	3
5	Request to be added to mailing list, kept informed of progress, and provided with copies of study reports	1	1	2
6	Arizona Game & Fish Department will work with lower basin states to develop report to congress, if needed	1		1
7	Consider/evaluate potential impacts of proposed Yucca Mountain waste disposal site on Colorado River and groundwater supplies	1		1
8	Consider/evaluate potential of new law suit opposing All-American Canal Lining Project	1		1
9	Consider/evaluate reconstruction of Glen Canyon Dam to be made structurally safer	1		1
10	Consider/evaluate strategies that protect federal mandates such as protect nation and preserve national sovereignty	1		1
11	In the absence of a Consensus Plan, the Basin states would like the opportunity to submit specific alternatives for evaluation		1	1
12	Please advice if there will be additional public meetings in Phoenix	1		1
13	Provide information on public scoping meetings.		1	1
14	Provide results of public scoping meetings		1	1
15	Quechan Tribe requests to be listed as a party of interest and notified of additional opportunities to comment	1		1
16	Request consultation with Mexico to explain NEPA process and potential impacts on water quantity and quality to Mexico deliveries	1		1
17	Request that Western Area Power Administration be included in process to help analyze potential impacts relating to power production		1	1
18	Secretary must account for needs and water rights of Navajo Nation	1		1
19	Support the comments and recommendations submitted by the Arizona Department of Water Resources		1	1
20	Supports position and recommendations of Basin States	1		1
21	Supports position of Glen Canyon Institute for Glen Canyon Dam	1		1
22	Update reference to drought or the allocation of waters between the U.S. and Mexico consistent with terminology used in 1944 Water Treaty	1		1
23	Use process that weighs benefits against impacts	1		1
<b>Total Comments</b>		<b>21</b>	<b>13</b>	<b>34</b>

# **Appendix V**

## **Summary of Issues Raised in Comments Grouped by Resource/Issue Area**

**V-23 Alternatives Related Comment Ranked by Frequency of Comment**

**Table V-23**  
**Alternatives Related Comments Ranked by Frequency of Comment**

Comment No.	Comment Summary	Group 1	Group 2	Total
1	Consider /evaluate Arizona shortage and Lake Mead trigger proposal with 600 KAF delivery reduction		8	8
2	Consider/evaluate submitted shortage criteria alternative - "Conservation Before Shortage"	1	7	8
3	Opposes inclusion of Conservation Before Shortage alternative in EIS		1	1
<b>Total Comments</b>		<b>1</b>	<b>16</b>	<b>17</b>