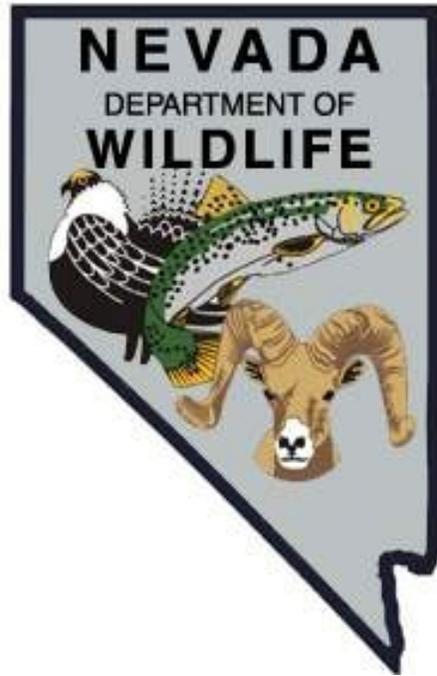


NEVADA DEPARTMENT OF WILDLIFE  
STATEWIDE FISHERIES MANAGEMENT



FEDERAL AID JOB PROGRESS REPORT  
F-20-54  
2018

EAST WALKER RIVER  
WESTERN REGION



**NEVADA DEPARTMENT OF WILDLIFE, FISHERIES DIVISION  
ANNUAL PROGRESS REPORT**

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**NEVADA DEPARTMENT OF WILDLIFE, FISHERIES DIVISION  
ANNUAL PROGRESS REPORT**

**State:** *Nevada*  
**Project Title:** *Statewide Fisheries Program*  
**Job Title:** *East Walker River*  
**Period Covered:** *January 1, 2018 through December 31, 2018*

**SUMMARY**

This was a near average year for snowpack, precipitation, and subsequent flow in the Walker Basin. During 2018, 83% of average snow-water equivalent was recorded at SNOTEL sites in the Walker Basin of the Sierra-Nevada. Peak flow in 2018 was recorded on May 25 at 1,212 cfs; comparatively, in 2015 it was 135 cfs.

Based on the latest Mail-in Angler Questionnaire Survey conducted for 2017, it was estimated that 626 anglers spent 1,746 days to catch 9,581 fish for a catch rate of 5.49 fish per angler-day at the East Walker River. Angler use was over triple the result from the previous year, but the success rate was down over half.

Along the general-fisheries portion of the East Walker River (Elbow, Raccoon Beach, Ravenelle, Rafter 7 Ranch, and Flying-M), the impacts of drought and flash flooding from 2014 to 2016 resulted in finding low trout numbers and a corresponding drop in angling pressure in 2018. Low flow followed by high flows in 2017 also made fishing nearly impossible for much of the year. During 2018, flows were near normal and Rosaschi Ranch angler success was about average at 0.88 and 1.40 fish per hour based on contact angler creel and drop-box survey data, respectively. Anglers reported catching nice sized fish at Rosaschi Ranch, with a few greater than 18 in. Roving creel and angler drop-box results showed brown trout averaged slightly larger than rainbow trout (11.7 and 10.1 in, respectively), which was consistent with historical data.

East Walker River electroshocking survey methods during 2018 were consistent with historical methods and the trend of an increasing trout population from downstream to upstream was again observed. Fish abundance throughout the river was estimated to be near average (or slightly higher at some survey locations) for the first time in five years. At Rosaschi Ranch, a density of 1,008 trout per mile was found, which compared well to the 10-year average of 1,381 trout per mile. Juvenile brown trout historically make up a large portion of the wild trout density estimates and this was observed for 2018.

General habitat observations during 2018 suggested that river conditions continued to improve, consistent with trout densities at survey locations. The newest location surveyed at the Flying-M Ranch resulted in finding no trout. A more suitable location will be identified next year. Ravenelle, found near the confluence with Rough Creek, showed similar habitat conditions as Rosaschi Ranch although wild trout populations were shifted more towards adults than the juvenile dominated Rosaschi Ranch site. During 2018, wild brown, rainbow, and mountain whitefish were observed at

most survey locations. Mountain whitefish were found downstream as far as Rafter 7 Ranch, suggesting favorable temperatures existed further downstream than usual since the water supply improved the last couple of years.

In 2018, the East Walker River was stocked with 19,877 catchable brown trout averaging 6.6 in and 26,196 rainbow trout averaging 9.3 in. Typically, fingerlings are stocked; however, in 2017 and 2018, larger brown trout were augmented since the wild population was still in recovery from the effects of prolonged drought. Rafter 7 Ranch and Flying-M Ranch were two new locations stocked during June with rainbow and brown trout. California Department of Fish and Wildlife typically stocks fingerling brown trout below Bridgeport Reservoir and, during 2016, 16,028 fingerling brown trout averaging 11.4 fish per pound were stocked, data for 2017 and 2018 has not yet been received.

## **BACKGROUND**

The East Walker River originates along the eastern slope of the Sierra-Nevada in California. Bridgeport Reservoir, CA, located 11.3 km (7.0 mi) upstream from the NV-CA border, supplies irrigation water to farmland in Nevada and has a maximum volume of 40,494 acre-ft. The Walker River Irrigation District (WRID) can divert to storage 39,700 acre-ft per annum (afa) in Bridgeport Reservoir (CA), but can only withdraw 36,000 afa. The irrigation season generally begins April 1 and ends November 1 and summertime flow typically ranges from 200 to 500 cfs below the reservoir.

The California State Water Board maintains a minimum discharge below Bridgeport Reservoir of 20 cfs. However, from November to February, when air temperature diminishes below 0°F, minimum discharge increases to 30 cfs to reduce anchor ice and provide riffle/pool habitats for trout.

Land status adjacent to the East Walker River varies from U.S. Forest Service, Bureau of Land Management, to private property. In 1995, the American Land Conservancy purchased the Rosaschi Ranch, approximately 2.2 to 8.2 river miles below the NV-CA border. This land now is under USFS management, while NDOW manages the fishery as “quality” having a zero-harvest limit. The Flying-M Ranch historically has allowed public access at the Elbow, which is the beginning of the “general fishery” and anglers can harvest 5 trout and 10 mountain whitefish. The East Walker River flows for about 62 mi in Nevada before it reaches the confluence with the West Walker River in Mason Valley. Prior to 2016, approximately 21 mi or 34% was public; however, through additional cooperation with private landowners, 38% of the river was accessible to anglers. During 2016, several large private ranches (Rafter 7 Ranch, Flying-M Ranch, Pitchfork, and Nine-Mile Ranch.) were transferred from private ownership to the State of Nevada, Division of State Parks (NDSP). Approximately 28 river miles that have been closed will become accessible to the public and some areas of the Pitchfork Ranch and Rafter 7 Ranch were open to the public in 2018.

## OBJECTIVES

- Conduct a general fisheries assessment through opportunistic angler contacts, mail-in, angler questionnaire data, and drop box data.
- Conduct general fish habitat assessments on lands recently acquired by Nevada State Parks.
- Coordinate with land management agencies and private landowners to develop new public access and stocking locations where opportunities exist.
- Monitor fish populations during three days of tote-barge electroshocking at five established sites during November.

## PROCEDURES

**Conduct a general fisheries assessment through opportunistic angler contacts, mail-in angler questionnaire, and drop box data.** Anglers were contacted on six occasions during 2018, primarily at five locations along the East Walker River including Rosaschi Ranch, the Elbow, Ravenelle, Raccoon Beach, and Rafter 7 Ranch. Angler creel information was collected throughout the year and 22 anglers were contacted during the survey. Information obtained from anglers included type of fishing gear used, number and species of fish caught, size of fish caught, location of fish caught, county of residence, and number of hours fished. The Mail-in Angler Questionnaire Survey consisted of a questionnaire mailed at the end of 2017 to anglers acquiring a Nevada fishing license. Data was received and summarized for estimated number of anglers, fish caught, days spent fishing, and catch rates.

Questionnaires from three streamside drop-boxes located throughout Rosaschi Ranch not only collected basic creel information, but also collected angler satisfaction ratings (ranked from +2 [highly satisfied] to -2 [dissatisfied]). Data from all drop-boxes was combined. Boxes were maintained throughout the year.

**Conduct general fish habitat assessments and lands recently acquired by Nevada State parks.** During 2018, general habitat conditions were noted at each fish survey site. From data collected during the inventory, a Habitat Condition Index (HCI) score was generated using six habitat parameters of pool measure, pool structure, stream bottom, bank cover, bank soil stability, and bank vegetation stability. HCI's of less than 100% reflect certain degrees of habitat improvements that can occur in a stream. The six parameters can be used as indicators in determining which specific areas would be of greatest benefit for improving a stream or stream reach for fish.

**Coordinate with land management agencies and private landowners to develop new access and stocking locations where opportunities exist.** The Walker Basin Conservancy acquired several ranches (Rafter 7 Ranch, Flying-M Ranch, etc.) over the past few years. During the fall of 2016, an agreement between the National Fish and Wildlife Foundation (NFWF), the Walker Basin Conservancy (WBC), and Nevada Division of State Parks (NDSP) was finalized and approximately 28 miles of river were transferred from private ownership to the State of Nevada to be managed by State Parks. During

2017, NDOW's access to the Rafter 7 Ranch and Flying-M Ranch properties was granted and fish population surveys and inspections of existing roads and stream access were conducted. Several meeting and field tours were attended and focused on public access, fish stocking locations, river rafting put-in's and take-outs, and trail mapping on several of the locations.

**Monitor fish populations along the East Fork during three days of tote-barge electroshocking at seven established sites during November.** Three of the historical transects established along the East Walker River (Rosaschi Ranch, the Elbow, Raccoon Beach) were sampled during 2018. Zanis was not sampled. Three additional transects were sampled at the newly acquired State Parks properties (Rafter 7 Ranch, the Ravenelle, and Flying-M). A tote barge electroshocker was towed through each transect for one-pass without the use of block nets. Sampling occurred in at least two pools and two riffles per site covering about 0.10 to 0.25 mi of river. Sampling time varied from 10.9 min at Flying-M Ranch to 36.6 min at the Rafter 7 Ranch. All fish captured were measured to the nearest millimeter and released.

## FINDINGS

**Conduct a general fisheries assessment through opportunistic angler contacts, mail-in angler questionnaire, and drop box data.** Angler contacts were made on six occasions during 2018 along the East Walker River. The average catch rate was 1.19 fish per hour, which was above the 20-year average of 0.90 (Table 1). Seven angler contacts were made at Rosaschi Ranch where anglers fished 25 hrs to catch 22 fish for a catch rate 0.88 fish per hour. The size of brown trout ranged from 8.0 to 16.0 in and averaged 11.7 in and rainbow trout ranged from 6.0 to 16.0 in and averaged 10.1 in.

**Table 1.** East Walker River Creel Survey (All Survey Sites Combined).

	2013	2014	2015	2016	2017	2018	Hist. Ave.
No. Days Surveyed	10	10	7	6	7	6	9
No. Anglers Checked	9	22	15	15	16	22	42
Total Angler Hours	23	85	54	52	58	62	125
No. Trout Caught	35	75	49	23	41	74	94
Rainbow	26	26	22	12	30	28	70
Avg. Size mm (in)	358 (14.1)	317 (12.5)	355 (14.0)	264 (10.4)	286 (11.2)	257 (10.1)	283 (11.1)
Brown	9	49	30	11	11	46	22
Avg. Size mm (in)	366 (14.4)	345 (13.6)	274 (10.8)	289 (11.4)	320 (12.6)	296 (11.7)	312 (12.3)
Avg. Fish per Hour	1.52	0.88	0.91	0.44	0.71	1.19	0.9
Avg. Fish per Angler	3.89	3.41	3.27	1.53	2.56	3.36	2.4

Rosaschi Ranch is managed under a Coldwater, Trophy Fishery Management Concept, Catch rates derived from creel surveys in 2018 found that Rosaschi Ranch met the objectives for a trophy fishery (between 0.5 and 1.7 fish per hour and 0 and 1.0 fish per angler day) during 2018. The average size of trout was just below a trophy fishery standard (based on contact surveys); however, anglers reported several large brown trout (greater than 18.0 in) in the drop-box and large brown trout were caught during the electroshocking survey.

The East Walker River downstream of Rosaschi Ranch is managed under a Coldwater, General Fishery Management Concept. Twelve anglers contacted at the Elbow and three at Ravenelle caught 52 fish after fishing for 2.46 hrs. The average catch rate was 1.41 fish per hour, which greatly exceeded the management objective of 0.25 to 0.75 fish per hour. Rainbow trout averaged slightly over 10.0 in, the expectation from a hatchery supported trout fishery.

Results from the mail-in, angler questionnaire for the East Walker River from 2009 through 2017 are summarized in Table 2. Estimates from 2017 were well below average, with the exception of an above average catch rate.

**Table 2.** Mail-in, Angler Questionnaire Data, 2009 to 2017.

	2009	2010	2011	2012	2013	2014	2015	2016	2017	Ave
Number of Anglers	3,096	2,030	1,905	2,488	1,364	1,471	461	573	626	1,557
No. Angler Days	10,137	8,228	6,118	9,150	4,232	4,620	1,388	1,427	1,746	5,227
Total Fish Caught	54,005	42,889	34,179	39,139	21,686	15,640	3,781	7,568	9,581	25,385
Fish per Angler Day	5.33	5.21	5.59	4.28	5.12	3.39	2.72	5.30	5.49	4.71

Historical results from drop-box questionnaires collected at Rosaschi Ranch are summarized in Table 3. Participation in 2018 was above average, most likely due to improved access and angling conditions (moderate flows). In 2017, participation was below average, most likely from the construction of the parking lot at the most popular fishing access site and from extremely high flows throughout the year making fishing difficult. Again, catch rates in 2018 met the objectives of a coldwater trophy fishery and satisfaction ratings were above average for all categories and the highest since 2013 (prior to the four-year drought) (Table 4).

**Table 3.** Rosaschi Ranch Drop-Box Survey Results, 2010 to 2018.

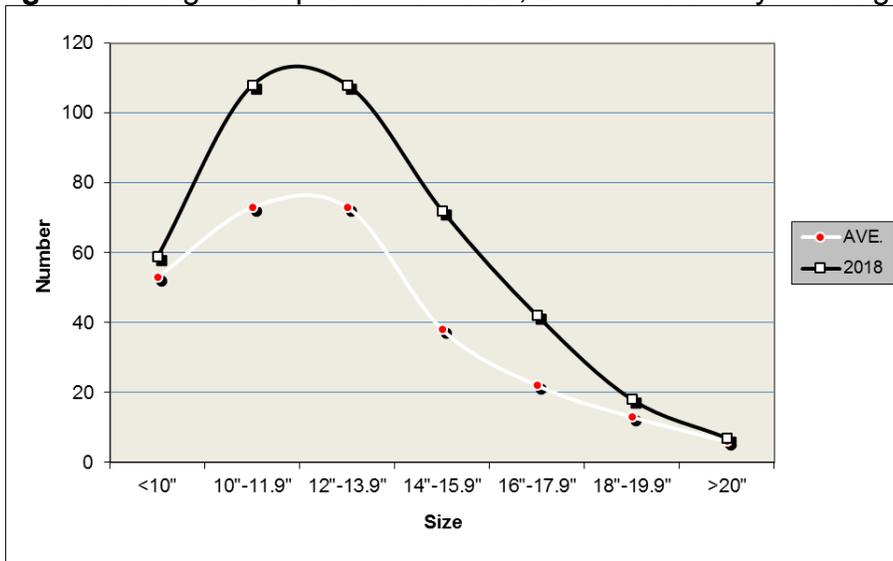
	2010	2011	2012	2013	2014	2015	2016	2017	2018	AVE
No. Anglers	34	26	37	65	62	30	38	9	65	41
Hrs Fished	139.5	131	195	289.5	304	160	172	34.5	296	191
Rainbow	142	76	190	319	113	43	95	28	236	138
Brown	63	53	164	185	139	58	55	14	164	99
Whitefish	7	7	18	16	19	7	4	0	13	10
Fish/Hour	1.52	1.04	1.91	1.80	0.89	0.68	0.90	1.22	1.40	1.26
Fish/Day	6.24	5.23	10.05	8.00	4.37	3.60	4.05	4.67	6.35	5.84

**Table 4.** Rosaschi Ranch Drop-Box Satisfaction Survey, 2009 to 2018.

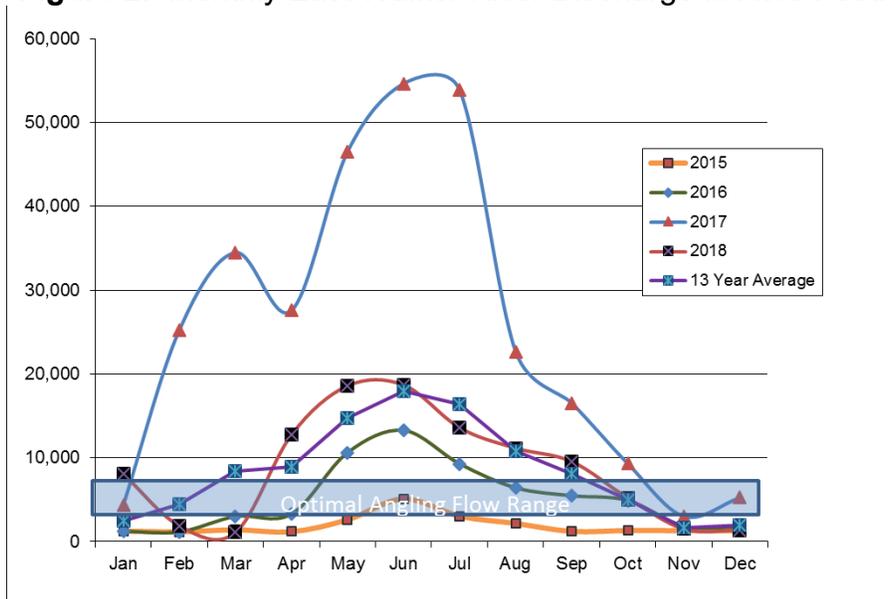
	Overall Experience	Size of Fish	Number of Fish
2009	0.91	0.81	0.56
2010	1.46	1.20	1.00
2011	1.42	1.12	0.88
2012	1.12	1.19	0.73
2013	1.06	0.75	0.87
2014	0.91	0.58	0.40
2015	0.46	0.22	-0.35
2016	0.49	0.37	0.10
2017	0.78	0.22	0.33
2018	1.24	0.88	0.64
AVE	0.99	0.73	0.52

During 2018, a greater than average number of fish in all size categories were caught, suggesting that trout are recovering from the four-year drought (Figure 1). Most fish were caught during October when temperatures dropped and optimal flows allowed for successful angling (Figure 2). Based on angler use, optimal angling flows are typically when discharge is 4,000-6,000 acre-ft per month or averages 80 to 140 cfs on a daily basis. Flow during 2018 was near average for much of the year, this is contrasted by extreme drought observed during 2015 and extreme flood observed during 2017. Catch rates, number of fish caught, and discharge rebounded to near average or above during 2018. Angler drop-box data and mail in angler questionnaire data from 2006 through 2018 suggest that Rosaschi Ranch has met NDOW objectives of a coldwater trophy fishery.

**Figure 1. Angler Drop-Box Fish Size, 2018 vs the 13 yr Average.**



**Figure 2. Monthly East Walker River Discharge in Acre-Feet.**



**Conduct general fish habitat assessments and lands recently acquired by Nevada State Parks.** Observations made during 2018 appeared to verify that river habitat is improving as flow conditions improve.

**Coordinate with land management agencies and private landowners to develop new access and stocking locations where opportunities exist.** During 2018, access to the Rafter 7 Ranch, Flying-M Ranch, and Ravenelle properties was granted and a fish survey and inspection of accessibility to the river were conducted. Several sites were identified for potential stocking. Hatchery personnel verified suitable locations at Rafter 7 Ranch and Flying-M Ranch, but Ravenelle had accessibility issues. Rafter 7 Ranch and Flying-M Ranch were stocked during spring 2018 (Table 5). Fish population and habitat monitoring will be evaluated.

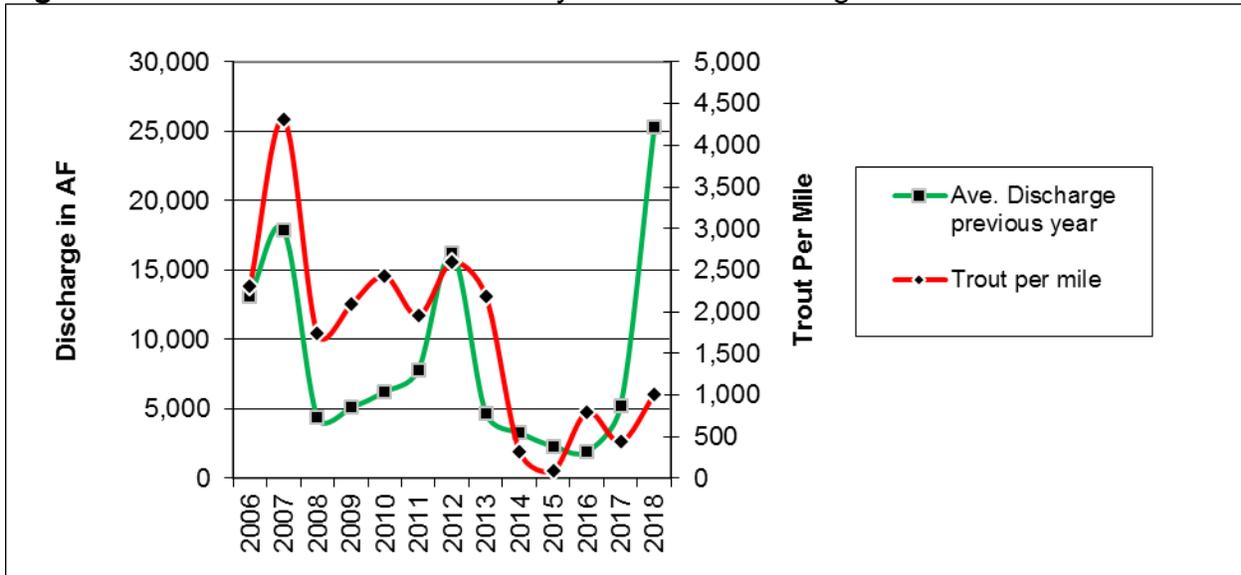
**Table 5.** Walker River Stocking Summary, 2018.

East Fork	Date	Species	Strain	Number	Size	
Rafter 7	6/27/2018	Brown	Sheep Creek	17,849	4.2	
Flying M Bridge	6/27/2018	Rainbow	Kamloop	15,001	5.9	
	9/24/2018	Rainbow		1504	9.5	
	6/13/2018	Brown	Sheep Creek	2,028	9.0	
	6/8/2018	Brown	Eagle Lake	3,003	10.3	
	5/16/2018	Rainbow	Eagle Lake	3,150	9.3	
	5/16/2018	Rainbow	Eagle Lake	301	10.1	
	5/9/2018	Rainbow	Eagle Lake	1,508	10.3	
	4/26/2018	Rainbow	Eagle Lake	1,729	10.0	
				<b>Brown Total</b>	<b>19,877</b>	<b>6.6</b>
				<b>Rainbow Total</b>	<b>26,196</b>	<b>9.3</b>
West Fork	Date	Species	Strain	Number	Size	
	11/7/2018	Rainbow	Trout Lodge (dipliod)	1,003	9.5	
	10/16/2018	Rainbow	Trout Lodge (dipliod)	2,121	9.4	
	9/27/2018	Rainbow	Eagle Lake	1,504	9.5	
	6/25/2018	Rainbow	Trout Lodge (tripliod)	2,120	8.4	
	6/18/2018	Rainbow	Trout Lodge (tripliod)	2,159	9	
	6/13/2018	Brown	Sheep Creek	2,028	9	
				<b>Rainbow Total</b>	<b>8,907</b>	<b>9.2</b>
				<b>Brown Total</b>	<b>2,028</b>	<b>9</b>

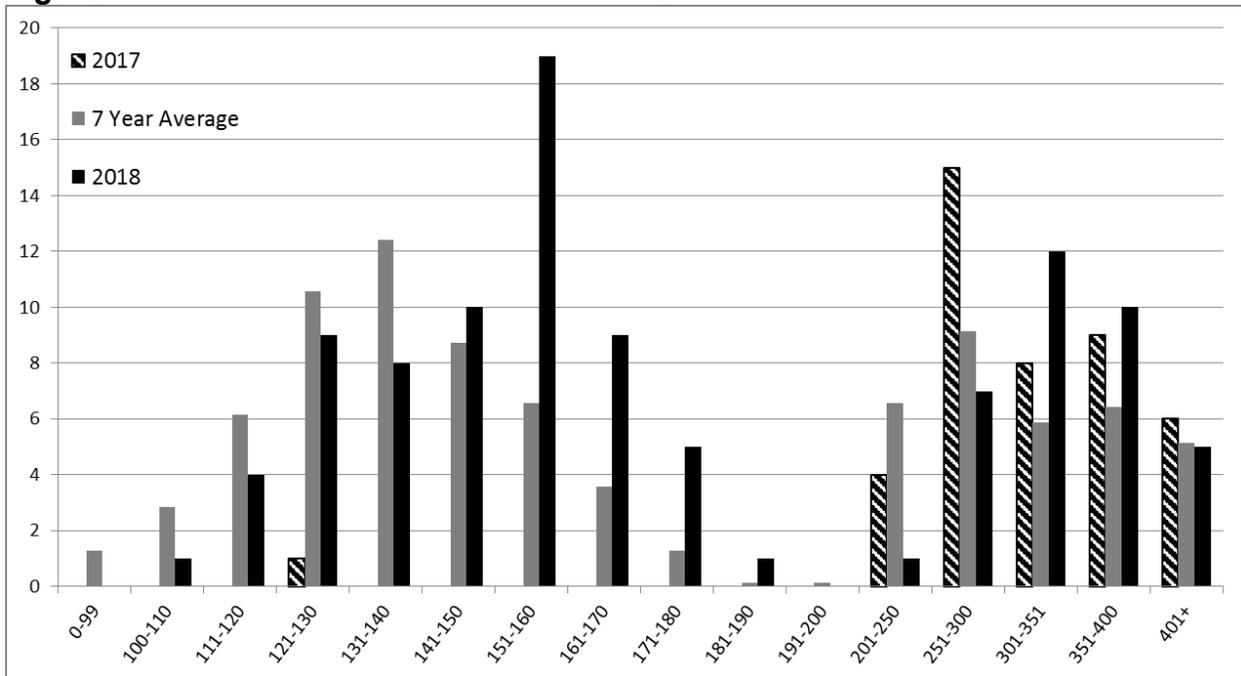
**Monitor fish populations along the East Fork during three days of tote-barge electroshocking at seven established sites during November.** Historical electroshocking surveys at Rosaschi Ranch show fish populations fluctuated annually (Figure 4). During 2017, flows were too high to use the tote barge for sampling during November; therefore, surveys were delayed until December. During 2018, flows were near average and the tote barge was successfully utilized during early November. Very few juvenile trout were found at Rosaschi Ranch in 2017 and it is speculated they were not able to remain upstream during extremely high flows observed throughout much of

the year (Figure 2). On the other hand, an above average number of adult trout were observed during 2017 suggesting that older, larger fish were able to combat high flows. During 2018, near or above average numbers of trout were observed in all size categories (Figure 4), the juvenile population was shifted slightly larger than average suggesting there was an earlier spawn. The brown trout population appears healthy.

**Figure 3.** Rosaschi Ranch Fish Density and River Discharge.



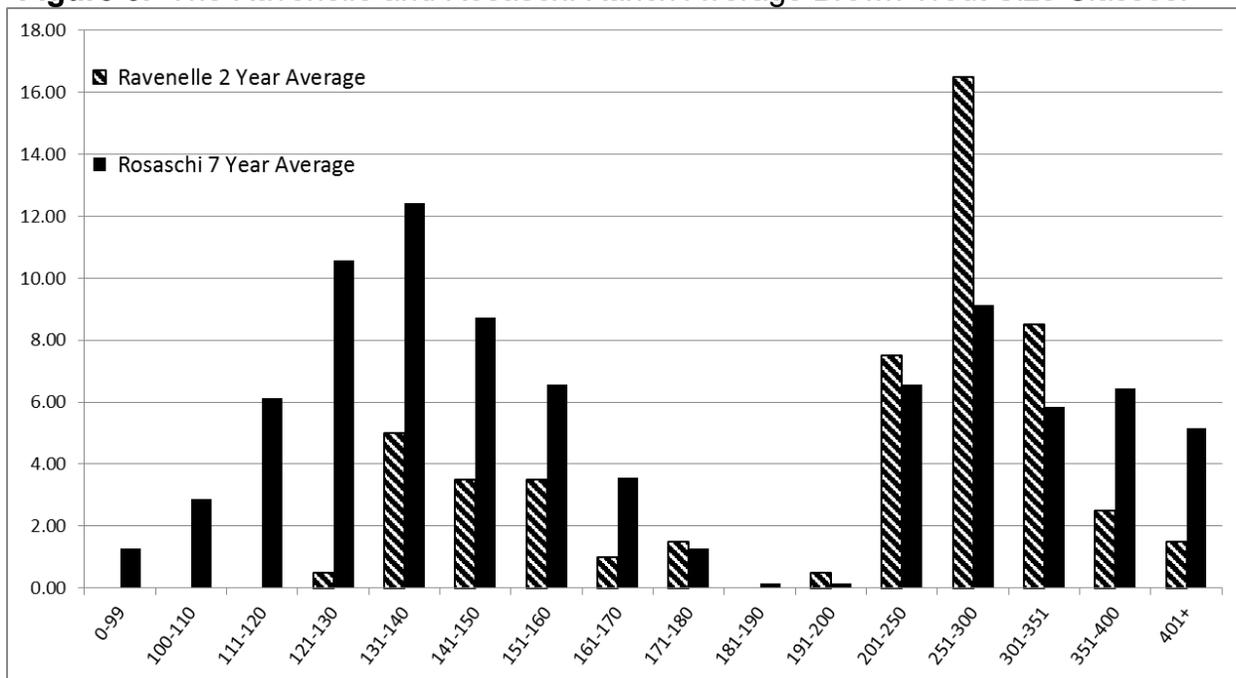
**Figure 4.** Rosaschi Ranch Brown Trout Size Classes.



The electroshocking surveys at the Ravenelle show the size structure of the wild brown trout population may be somewhat similar to Rosaschi Ranch, although skewed

toward adults (Figure 5). This was somewhat difficult to determine due to flood conditions experienced and 2017 being the first year the Ravenelle was surveyed. Habitat surveys indicated that trout habitat at the Ravenelle was better than what was observed at the Elbow, but not as good as observed at Rosaschi Ranch. Large trout (greater than 400 mm or approximately 16 in) were observed at Rosaschi Ranch, the Elbow, the Ravenelle, and Raccoon Beach. Trout density was estimated to be 1,008 trout per mile at Rosaschi Ranch, 952 at the Elbow, 336 at the Ravenelle, 181 at Raccoon Beach, and 37 at Rafter 7 Ranch. No trout were found at the Flying-M Ranch. Trout density at the Elbow included a large majority of hatchery fish (greater than 75% of all trout caught were hatchery rainbow and brown trout) from recent stocking events, therefore, the estimate was not indicative of a wild population.

**Figure 5.** The Ravenelle and Rosaschi Ranch Average Brown Trout Size Classes.



Brown trout age classes were divided into adults and juveniles (Figures 4 and 5). During 2017, only two juvenile brown trout were found, one at Rosaschi Ranch and one at the Ravenelle. Juvenile brown trout followed historical trends during 2018, that is, the majority of juvenile brown trout ranged from 5.2 to 6.3 in (131 to 160 mm) and only a few were found as small as 4.0 in (100 mm) to as large as 6.8 in (175 mm). This size range suggested there was an extended spawning season or there was a large difference between the sizes of stocked hatchery trout and wild-spawned trout. A long spawning period may contribute to the overall success given temporal changes in water conditions. Based on previous data from 2015-16, low flows resulted in limited available spawning habitat and any juvenile production was likely susceptible to predation by brown trout over 16 in (400 mm). Typical fall flow regimes for the East Walker River are detrimental for brown trout reproduction due to the dramatic drop during egg deposition and fry development. It is also likely that flood conditions experienced during 2017 were

detrimental to fry survival. However, additional spawning gravels may be exposed, as sand/silt is moved downstream helping to increase wild trout production for 2018.

Habitat conditions appeared to be in the process of recovering from the 2015 flash flood event that brought an enormous amount of sediment into the river, especially in the Raccoon Beach area. In 2017, increased gravel and boulders were observed in areas that in 2015 were covered with sand and silt. Native nongame fishes, as well as carry over brown and rainbow trout, were found during sampling at the Elbow, the Ravenelle, and Raccoon Beach. The 2017 flood appeared to clean the stream bottom to improve the fisheries.

NDOW and CDFW fish stocking history since 2011 are shown in Table 6. Recent stocking reports from CDFW have not yet been received. In California, CDFW stocks below Bridgeport Reservoir to the CA/NV border. Stocking continues to provide additional angling opportunity for the lower sections of the East Walker River (see 2018 stocking sight in Table 5).

**Table 6. Walker River Stocking History.**

	<b>East Fork</b>				<b>West Fork (NDOW only)</b>		
			Number	Size (in)		Number	Size (in)
<b>2017</b>	<b>NDOW</b>	Brown	14,423	9.7	Brown	-	
		Rainbow	3,737	10	Rainbow	6,800	9.6
	<b>CDFW</b>	Brown					
<b>2016</b>	<b>NDOW</b>	Brown	-		Brown	-	
		Rainbow	8,224	9.6	Rainbow	14,797	9.3
	<b>CDFW</b>	Brown	16,028	3			
<b>2015</b>	<b>NDOW</b>	Brown	-		Brown	-	
		Rainbow	8,710	8.4	Rainbow	7,265	8.5
	<b>CDFW</b>	Brown	3,000	9.8			
<b>2014</b>	<b>NDOW</b>	Brown	-		Brown	6,199	8.2
		Rainbow	11,835	9.3	Rainbow	10,421	9.6
<b>2013</b>	<b>NDOW</b>	Brown	14,756	2.4	Brown	7,845	3
		Rainbow	12,026	10	Rainbow	21,229	9.8
	<b>CDFW</b>	Brown	100,188	3.28			

No stocking occurs in the Rosaschi Ranch trophy fish section. Fingerling brown trout are stocked (when fish are available) at the Elbow by NDOW and upstream of the CA/NV border by CDFW (Table 6) to augment the brown trout population. Catchable

brown trout were augmented in 2017 and 2018 following drought conditions experienced over the past several years. Historically, fingerling brown trout, as well as rainbow trout and mountain whitefish, have been able to move freely from the Elbow upstream to Rosaschi Ranch. Typically, high flows during the spring and summer limit the ability of beavers to create dams across the entire channel. However, flows during the 2012 to 2015 drought were very low and beavers took advantage. Coordination occurred with the Walker River Irrigation District regarding removal of these dams in 2016 and, since 2017, no beaver dams transecting the entire river have been observed.

## **MANAGEMENT REVIEW**

The primary work program objectives for the East Walker River were completed in 2018. The data suggest that the East Walker River is meeting the goals and objectives for a coldwater general fishery and a coldwater trophy fishery (at Rosaschi Ranch). Current regulations for both the general fishery and trophy fishery are adequate and should remain unchanged.

Fall electroshocking results suggest that the fisheries are recovering from the drought observed from 2012 through 2015; however, flooding in 2017 may have hampered natural, instream trout propagation. The typical trend of higher trout abundance occurring from upstream to downstream was observed again in 2018. Based on fish surveys, the decline of trout abundance throughout the river during 2015 was concerning, and alarmed anglers regarding lower than normal catch rates. This was likely due to drought conditions that caused a reduction of flow that led to higher than normal water temperatures. Either this forced trout to migrate upstream to cooler temperatures prior to summer or mortalities increased as temperatures became lethal for trout at downstream areas. During 2016, the abundance of all size classes of trout increased due to there being near normal flows. However, in 2017 very little reproductive success was documented as a result of flooding. During 2018, near average flows combined with a healthy adult population resulted in an average number of trout in all size classes. Mountain whitefish frequency increased during 2018, being distributed as far downstream as the Rafter 7 Ranch, suggesting habitat conditions were favorable. This species has shown it is capable of surviving drought/flood cycles experienced frequently in the East Walker River.

In addition to habitat related stressors upon trout due to drought conditions, flash flooding degraded much of the river channel and fish habitat downstream of the Elbow during 2015. Based on population assessment surveys, the addition of large amounts of sediment affected fish distribution and abundance. Habitat monitoring was initiated during 2016 and expanded in 2017. This provided a base level for monitoring the natural recovery of habitat and determining fish habitat suitability for different sections of the river. Current monitoring suggests river conditions are improving.

The East Walker River continues to be popular among anglers in western Nevada. Angler success rates and size of fish caught were within the boundaries of management objectives, and data collected during 2018 suggest habitat conditions and fish populations

improved. Anglers have become more satisfied with fishing success than they have been over the past couple of years.

### **RECOMMENDATIONS**

- Conduct a general fisheries assessment through opportunistic angler contacts and mail-in, angler questionnaire, and drop box data.
- Conduct general fish habitat assessments on lands recently acquired by Nevada State Parks.
- Coordinate with land management agencies and private landowners to develop new public access and stocking locations where opportunities exist.
- Monitor fish populations along the East Fork during three days of tote-barge electroshocking at seven established sites during November.

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Date: February 2019