

Reach Information Form (Lotic)

I. Background information:
Date: 4/13/2017
Riparian area/stream name: Silvermoon Lake
Reach ID: 12-Ra2
Management unit (allotment/pasture, other):
Administrative unit/state: CA PARKS
ID team members: AE, IM

Assessment method:
Reach length (miles/km):
[ ] Complete reconnaissance
[ ] Selective inspection of representative areas
[ ] Remote imagery with selective ground inspection

Location: Attach aerial image, USGS 7.5-minute topographic map, or GIS map with reach breaks indicated.

II. Reach break location:

Table with 2 columns: Reach starting point (upstream) and Reach ending point (downstream). Each column has fields for N. Lat., UTM E, W. Long., and N.

Positions by GPS? [ ] Yes [ ] No Photos taken? [ ] Yes [ ] No UTM Zone:
Datum: [ ] NAD27 [ ] NAD83 [ ] WGS84 [ ] Other (specify):

Rationale for reach breaks: Lower/downstream portion of 12-Ra - after reach flows through culvert, stream becomes wider, more incised, w/ sandy substrate.

III. Description of potential and rationale (should include description of hydrologic regime, stream type(s), and riparian plant communities at potential; may include additional information such as valley type, gradient, entrenchment ratio, sinuosity, width/depth ratio, and bed and bank materials):

Intermittent stream with an entrenched channel and generally planar streambed. Channel is possible inundated during high lake levels. Dense riparian vegetation occurs along banks

and floodplain, but due to entrenchment, veg is likely supported by precip & groundwater and less so from channel flow.
Rationale: Functional at risk - channel is deeply incised and with continued entrenchment the existing floodplain may be abandoned. However, fluctuating lake levels need to be considered.

IV. Other assessment or monitoring data or information about the reach:

- 1) Banks dominated by desert riparian - Salix lew, velvet ash (Fraxinus velutina), etc.
2) Substrate is sandy w/ some med-large cobble, banks 3-4 feet vertically incised, exposed roots on banks indicate sloufing, algal blooms, ponded areas.
3) Typha occurs at stream outlet at lake.
4) Lake of floodplain due to incised channel.
5) Channel has moderate sinuosity but is generally planar - possibly influenced by lake levels.

**PFC Assessment Form (Lotic)**

Riparian area/stream name: Silverwood Lake Reach ID: 12-Ra2 Date: 4/12/17

Yes	No	NA	HYDROLOGY
	<input checked="" type="checkbox"/>		1) Floodplain is inundated in "relatively frequent" events. Rationale: BANKS are approx. 3-4' high & vertically incised. Therefore, prohibiting floodplain inundation during normal precipitation events
	<input checked="" type="checkbox"/>		2) Beaver dams are stable. Rationale:
	<input checked="" type="checkbox"/>		3) Sinuosity, gradient, and width/depth ratio are in balance with the landscape setting (i.e., landform, geology, and bioclimatic region). Rationale: Sinuosity & gradient are in balance, but the width/depth ratio is not due to significant entrenchment.
<input checked="" type="checkbox"/>			4) Riparian area is expanding or has achieved potential extent. Rationale: Riparian area has achieved potential extent based on topograph and fluctuating lake levels
	<input checked="" type="checkbox"/>		5) Riparian impairment from the upstream or upland watershed is absent. Rationale: Upstream culvert has created a pinch point likely resulting in a reduced floodplain and increased potential for downstream scouring & degradation (By channeling flows through a small culvert = increased flow velocity). likely has effect on downstream stream function

Yes	No	NA	VEGETATION
<input checked="" type="checkbox"/>			6) There is adequate diversity of stabilizing riparian vegetation for recovery/maintenance. Rationale: Mature woody species are dense along the banks. Scour exposed root systems provide stabilization of banks
<input checked="" type="checkbox"/>			7) There are adequate age classes of stabilizing riparian vegetation for recovery/maintenance. Rationale: Saplings & mature trees provide dense coverage of banks
<input checked="" type="checkbox"/>			8) Species present indicate maintenance of riparian soil-moisture characteristics. Rationale: Desert riparian consists primarily of FACW & FAC species (Salix spp & BAC SAL).
<input checked="" type="checkbox"/>			9) Stabilizing plant communities capable of withstanding moderately high streamflow events are present along the streambank. Rationale: Mature trees / saplings & woody shrubs provide stabilization along the streambank
<input checked="" type="checkbox"/>			10) Riparian plants exhibit high vigor. Rationale: Plants did not exhibit signs of stress.
<input checked="" type="checkbox"/>			11) An adequate amount of stabilizing riparian vegetation is present to protect banks and dissipate energy during moderately high flows. Rationale: Vegetation supports deep enough roots to prevent excessive lateral expansion

<input checked="" type="checkbox"/>		12) Plant communities are an adequate source of woody material for maintenance/recovery.	
Rationale: Yes, adequate woody material occurs along stream, however, no woody material was observed in streambed possibly due to stream channel during periods of high lake levels transporting materials into the lake.			
Yes	No	NA	GEOMORPHOLOGY
	<input checked="" type="checkbox"/>		13) Floodplain and channel characteristics (i.e., rocks, woody material, vegetation, floodplain size, overflow channels) are adequate to dissipate energy.
Rationale: System lacks floodplain, woody material, veg, overflow channels, etc., and supports sandy soils. Therefore, the stream is subject to scouring.			
	<input checked="" type="checkbox"/>		14) Point bars are revegetating with stabilizing riparian plants.
Rationale: No point bars present			
<input checked="" type="checkbox"/>		15) Streambanks are laterally stable.	
Rationale: Mature veg w/ deep roots has stabilized the channel laterally.			
	<input checked="" type="checkbox"/>	16) Stream system is vertically stable (not incising).	
Rationale: Channel is deeply incised.			
	<input checked="" type="checkbox"/>	17) Stream is in balance with the water and sediment that is being supplied by the drainage basin (i.e., no excessive erosion or deposition).	
Rationale: Stream appears to be continually incising/eroding - likely influenced by lake levels			

Summary Determination

Functional rating (check one)

- Proper functioning condition
- Functional-at risk
- Nonfunctional

Trend (check one)

- |  |  |
|--|--|
| Monitored trend                              | Apparent trend                                   |
| <input type="checkbox"/> Upward              | <input type="checkbox"/> Upward                  |
| <input checked="" type="checkbox"/> Downward | <input type="checkbox"/> Downward                |
| <input type="checkbox"/> Static              | <input checked="" type="checkbox"/> Not apparent |



Rationale for rating:

Reach is deeply entrenched and may eventually abandon the floodplain. However, managed lake levels may prevent this. Erosion of sediment (scoured vertical banks) was observed. Not know if portion of reach is inundated during high lake levels possibly leading to planar bed and bank erosion.

Rationale for trend:

Continued entrenchment threatens feature

Are there factors present preventing the achievement of PFC or affecting progress towards desired condition that are outside the control of the manager?

Yes       No

If yes, what are those factors? Check all that apply.

- Flow regulations
- Road encroachment
- Mining activities
- Oil field water discharge
- Upstream channel conditions
- Augmented flows
- Channelization
- Other (specify:)

Explain factors preventing achievement of PFC: Area supports sandy soils which are easily eroded - especially during high lake levels and large rain events.

Entrenchment may be inevitable due to sandy soils and fluctuating lake levels

(Revised 2014)

Typha  
Salix exi  
" god  
" las

BAC SAL

Bromes

Rumex

Eri tri

\*Quercus