

McNary Dam Avian Deterrent Predation Array Ranking Matrix		Scoring Criteria					
Alternatives		Five is highest ranking score (best) one lowest ranking score (worst)					Total Accumulated Points (highest score is top preferred)
Number	Description	Biological Effectiveness	Maintenance and Installation	Device Reliability	Other	No score	
1	FR 6.3 JBS Pier to Nav Lock Guidewall - screened out due to added structural load concerns at outfall pier					No score	Cannot secure to a single point on the outfall. Outfall will not support load of wires. Covers small area.
2	FR 6.4 JBS Pier to Navigation Lock & Guidewall, Spillway, and Powerhouse - screened out due to added structural load concerns at outfall pier					No score	Cannot secure to single points on Juvenile bypass pipe. Install/maintenance outweighs the effectiveness around powerhouse and spillway coverage. Very few smolts pass through powerhouse and turbulence in tailrace near spillway is extreme during spill season making predation difficult.
3	FR 6.5 Oregon Shoreline to Navigation Lock Guidewall	3	3	3		9	Covers the area of highest predation concentration. Ease of installation, not attached to spillway/powerhouse. Would have little impact on project operations during installation/maintenance.
4	FR 6.6 Shoreline to Navigation Lock & Guidewall, Spillway, and Powerhouse minus powerhouse	3	2	3		8	Covers areas of highest predation concentration. Costly and difficult to install on powerhouse/spillway. Would have major impact on project operations during installation/maintenance. Very few smolts pass through powerhouse and turbulence in tailrace is extreme during spill season making predation difficult.
5	FR 6.7 Powerhouse and Spillway to Navigation Lock and Guidewall	2	1	3		6	Overlaying wires are difficult to install and repair. Would have major impact on project operations during installation/maintenance. Very few smolts pass through powerhouse and turbulence in tailrace is extreme during spill season making predation difficult. Doesn't cover area of major concern at JBS release site.
6	Jacobs Tailrace Pier – Navigation Lock and Guidewall Array	1	2	3		6	Covers little area of concern.
7	Jacobs Tailrace Pier to JBS Outfall Pier - Originally screened out due to structural concern at outfall pier, but further investigation considered feasible. Low biological effectiveness (predation area coverage).	1	2	3		6	Small coverage area. Installation/maintenance outweighs the effectiveness around the area of coverage. Very few smolts pass through powerhouse and turbulence in tailrace is extreme during spill season making predation difficult.
8	Jacobs Oregon Shore to Navigation Lock Guidewall Array	3	3	3		9	Covers the area of highest predation concentration. Ease of installation, not attached to spillway/powerhouse. Would have little impact on project operations during installation/maintenance.
9	Jacobs Oregon Shore to Navigation Lock and Spillway Array - no powerhouse included	1	3	3		7	Difficult to install on spillway. Would have major impact on project operations during installation/maintenance. Turbulence in tailrace is extreme during spill season making predation difficult.
10	Jacobs JBS Outfall Pier to Powerhouse Array - Originally screened out due to structural concern at outfall pier, but further investigation considered feasible. Low biological effectiveness and installation complexity.	1	1	3		5	Doesn't cover high predation zones. Install/maintenance outweighs the effectiveness around powerhouse coverage. Very few smolts pass through powerhouse during spill season.
11	Jacobs JBS Outfall Pier to Spillway Array - Originally screened out due to structural concern at outfall pier, but further investigation considered feasible. Installation complexity.	2	1	3		6	Installation/maintenance concerns. Covers little predation area of interest.
12	Jacobs Navigation Lock Guidewall to Spillway Array	1	2	3		6	Installation concerns. Covers little predation area during high spill.
13	Jacobs Navigation Lock Guidewall to Spillway and Powerhouse Array - screened out due to installation challenges and lack of coverage at JBS outfall					No score	Installation concerns. Covers little predation area during high spill.
14	Jacobs In-Water Floating Array	1	1	3		5	Installation difficulty. Continuous maintenance with inwater array collecting debris.
15	Jacobs In-Water Floating Array with Modified Outfall Location - screened out because moving the outfall would defeat earlier design intent for discharge location					No score	Cannot move outfall.
Alternatives added after Concept Design Workshop							
16	Jacobs 8, 9 (wire array) and 14 (in-water array) combined	4	1	3		8	Covers the area of highest predation concentration. Multi-method approach (effective against multiple avian species?). Would have impact on project operations during installation/maintenance. Very few smolts pass through powerhouse and turbulence in tailrace is extreme during spill season making predation difficult.
17	Jacobs 8 extended to Spillway Deck and 14 combined	4	2	3		9	Covers the area of highest predation concentration. Multi-method approach (effective against multiple avian species?). Would have little impact on project operations during installation/maintenance.