

ATTACHMENT J

Attachment A Risk Register (Retired Risks)

New risks retired since July 29, 2019

Risk ID	Risk Category	Risk Description	Root Cause(s)	Phase When Actualized	Probability (P)	Impact (I)	Risk Weight (P x I)	Overall Rating	KRRC Management Strategy	Risk Management Measure	Risk Owner	Risk Status
92	Environmental & Permitting	Objections to Iron Gate Fish Hatchery Management Plan Tribes may not support the Iron Gate Fish Hatchery Management Plan and as such may file a lawsuit, or require longer duration of operations. This will result in additional cost.	Tribes do not support and file lawsuit, or require longer duration of operations	Design	1 Very Unlikely (1-9%)	3 Moderate	3	Low	Accept	Outreach to tribes.	CDFW/PacifiCorp	Retire - Within the contract, the Owner has responsibility if IFC docs are not ready in time for Kiewit to begin construction; however, the risk would be passed on to CDFW/PacifiCorp who are ultimately responsible for design and funding related to the hatchery.
106	ROW	Property Restrictions The title search may uncover easements or other property instruments that affect the implementation of the work.	Difficulty in completing the title report in a timely manner and/or research reveals challenge to design or construction	Design	1 Very Unlikely (1-9%)	1 Very Low	1	Low	Manage	Work proactively to manage this task so that it does not become critical path.	Owner	Retire - property search has been completed.
18	Procurement	Guaranteed Maximum Price Agreement Failure to agree to GMP during detailed design. This may lead to a schedule delay.	Disconnect between DB and Owner	Design	3 Less Likely (20-39%)	2 Low	6	Med	Manage	Robust Engineer's estimate to include Monte Carlo analyses; independent review of Engineer's estimate, Include adequate contingency for project risk; Utilize project delivery method that provides Contractor's progress cost estimates to control budget (PDB). Close coordination and transparency on costs and associated assumptions during progress cost estimated prepared by DB; Provide contract exit strategy that Owner can terminate for convenience and implement alternate delivery approaches.	Owner	Retire - GMP has been reached.
29	Field Conditions	Quantity Overruns Quantity overruns on earthwork, concrete demolition, etc.	Existing as-built data, exploratory data not adequate or accurate	Construction	1 Very Unlikely (1-9%)	2 Low	2	Low	Manage	Obtain new topographic and bathymetric data for use by Designer and Contractor; Rigorous QA by Owner on design calculations and assumptions related to earthwork volumes.	Owner	Retire - this risk has been transferred to Kiewit as part of the GMP.
17	Design	Disputes DB Designer and Contractor disputes may lead to schedule delays and cost increases	Breakdown in PDB team relationship	Design	2 Unlikely (10-19%)	2 Low	4	Low	Transfer	Consider contractual measures to maximize design/contractor collaboration such as require Designer to be a partner rather than a subcontractor and provisions that oblige Contractor to continue work even when dispute arises.	PDB	Retire - project team remains on track and has negotiated key agreements.
81	Construction	Risk of failure for concept of using existing upstream diversion tunnel at Irongate: Full season of LDs, Full Season of time related overhead, redo concept.		Construction	1 Kiewit assumes 0	5 Very High	5	High	Manage	\$15M LDs, \$8M new tunnel, \$3M. 8-6-2019 decision not to use diversion tunnel outlet.	Owner	Retire - this risk has been transferred to Kiewit as part of the GMP.
201	Construction	CCIP insurance deductibles / expected losses		Construction	5 Very Likely (60-100%)	3 Moderate	15	High	Manage	CCIP deductible for expected losses not included in Kiewit pricing. KRRC to carry/cover costs for any deductibles paid for each occurrence.	Owner	Retire - this risk has been eliminated since we have moved away from a CCIP. Deductibles for KRRC insurance is carried in the register.
6	Construction	Existing Bridges Load Rating		Construction	1 Very Unlikely (1-9%)	1 Very Low	1	Low		Equipment, material causes bridge to fail. 8-6-2019 load rating complete and mitigated for risk in design	PDB	Retire - Kiewit has considered this risk and no longer considers it a risk; regardless, any impact would flow to Kiewit.
77	Construction	Unknown quantity/size of steel needed to drill through at Copco dams for drill and shoot operations		Construction	1 Kiewit assumes 0	2 Low	2	Low	Manage	Captured in estimate assumptions of LF of drilling/CY of demo	Owner	Retire - Kiewit has considered this risk and no longer considers it a risk; regardless, any impact would flow to Kiewit.