

Updated 8 February 2023

Best Estimates of Rocky Reach and Rock Island Fish Spill Requirements, 2023-2028
As Determined by HCP Fish Survival Study Results
(Spill percentages are a proportion of daily-average projected river flow at the Project)

2023

Rocky Reach Spring

- 0% fish spill (April-late May)
- **Firm** HCP 10-year check-in study to verify spring juvenile salmon passage survival at 0% spill level

Rocky Reach Summer

- 9% fish spill (start approx. 5/30 - end approx. 8/20)
- Possible survival study (June-July) for summer Chinook smolts at 9% spill level

Rock Island Spring

- 10% fish spill (start approx. 4/17 - end approx. 5/29)
- No juvenile salmon survival studies

Rock Island Summer

- 20% fish spill (start approx. 5/30 - end approx. 8/20)
- Possible survival study (June-July) for summer Chinook smolts at 20% spill level.

2024

Rocky Reach Spring

- 0% fish spill (April-late May)
- Possible repeat of 10-year HCP check-in spring juvenile salmon passage survival study at 0% spill level (only if the District fails to meet the 93% Survival Standard in the 2023 study)

Rocky Reach Summer

- 9% fish spill (start approx. 5/30 - end approx. 8/20)
- Possible survival study (June-July) for summer Chinook smolts at 9% spill level

Rock Island Spring

- 10% fish spill (start approx. 4/17 - end approx. 5/29)
- No juvenile salmon survival studies

Rock Island Summer

- 20% fish spill (start approx. 5/30 - end approx. 8/20)
- Possible survival study (June-July) for summer Chinook smolts at 20% spill level

2025

Rocky Reach Spring

- 0% fish spill (April-late May)
- Possible repeat of 10-year HCP check-in spring juvenile salmon passage survival study at 0% spill level (only if the initial 2023 study is repeated in 2024 and fails a second time to meet the 93% Survival Standard)

Mosey 2/8/23

Rocky Reach Summer

- 9% fish spill (start approx. 5/30 - end approx. 8/20)
- Possible survival study (June-July) for summer Chinook smolts at 9% spill level

Rock Island Spring

- 10% fish spill (start approx. 4/17 - end approx. 5/29)
- No juvenile salmon survival studies

Rock Island Summer

- 20% fish spill (start approx. 5/30 - end approx. 8/20)
 - Possible survival study (June-July) for summer Chinook smolts at 20% spill level
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2026

Rocky Reach Spring

- 0% fish spill (April-late May)
- Study scenario: No juvenile salmon survival study. (Either the 93% Survival Standard has been or is met between 2023 and 2025, and studies resume in 10 years, or the Standard is not met by 2025 after three years of study and the District enters Phase II¹ of the HCP.) Under Phase II, the District must implement additional tools at the project to meet the Standard. If the District enters Phase II after the 2025 study, at least one year (i.e., 2026) will be required to review additional tools and to negotiate within the HCP Coordinating Committee. Studies could resume in 2027.

Rocky Reach Summer

- 9% fish spill (start approx. 5/30 - end approx. 8/20)
- Possible survival study (June-July) for summer Chinook smolts at 9% spill level

Rock Island Spring

- 10% fish spill (start approx. 4/17 - end approx. 5/29)
- No juvenile salmon survival studies

Rock Island Summer

- 20% fish spill (start approx. 5/30 - end approx. 8/20)
 - Possible survival study (June-July) for summer Chinook smolts at 20% spill level
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¹ Under the provisions of the HCP, the District is allowed three years to reevaluate the Survival Standard at each project every 10 years, until the District demonstrates that it is still achieving the Standard (first achieved 10 years ago). If the District does not achieve the Standard after the third year of testing, then Phase II is enacted. When I allude to three years of study in the updates for 2026 and 2027, I am referring to this provision in the HCP.

2027

Rocky Reach Spring

- 0% fish spill (April-late May)
- Two study scenarios: 1) No juvenile salmon survival study (The 93% Survival Standard has been or is met between 2023 and 2025, and studies resume in 10 years), or 2) Possible juvenile salmon survival study at 0% spill level (The Standard is not met by 2025 after three years of study and the District enters Phase II¹ of the HCP. Under Phase II, the District must implement additional tools at the project to meet the Standard. If the District enters Phase II after the 2025 study, at least one year (i.e., 2026) will be required to review additional tools and to negotiate within the HCP Coordinating Committee. Studies could resume in 2027.)

Mosey 2/8/23

Rocky Reach Summer

- 9% fish spill (start approx. 5/30 - end approx. 8/20)
- Possible survival study (June-July) for summer Chinook smolts at 9% spill level

Rock Island Spring

- 10% fish spill (start approx. 4/17 - end approx. 5/29)
- No juvenile salmon survival studies.

Rock Island Summer

- 20% fish spill (start approx. 5/30 - end approx. 8/20)
- Possible survival study (June-July) for summer Chinook smolts at 20% spill level

¹ Under the provisions of the HCP, the District is allowed three years to reevaluate the Survival Standard at each project every 10 years, until the District demonstrates that it is still achieving the Standard (first achieved 10 years ago). If the District does not achieve the Standard after the third year of testing, then Phase II is enacted. When I allude to three years of study in the updates for 2026 and 2027, I am referring to this provision in the HCP.

2028

Rocky Reach Spring

- 0% fish spill (April-late May)
- 2023 Forecast: No juvenile salmon survival studies

Rocky Reach Summer

- 9% fish spill (start approx. 5/30 - end approx. 8/20)
- Survival study for summer Chinook smolts: TBD

Rock Island Spring

- 10% fish spill (start approx. 4/17 - end approx. 5/29)
- No juvenile salmon survival studies

Rock Island Summer

- 20% fish spill (start approx. 5/30 - end approx. 8/20)
- Survival study for summer Chinook smolts: TBD

Table 1. Rocky Reach Best Estimates for Fish Spill Level, Dates, and Survival Studies, 2023-2028

Year	Spring Spill - Best Estimate	Summer Spill - Best Estimate	Spring Fish Study	Summer Fish Study
2023	0% Firm April – late May	9% Firm Est. 5/30 - 8/20	<i>Firm HCP spring survival study (please see text)</i>	Possible Summer Chinook Study
2024	0% Firm April – late May	9% Firm Est. 5/30 - 8/20	<i>Possible second HCP spring survival study (please see text)</i>	Possible Summer Chinook Study
2025	0% Firm April – late May	9% Firm Est. 5/30 - 8/20	<i>Possible third HCP spring survival study (please see text)</i>	Possible Summer Chinook Study
2026	0% Firm April – late May	9% Firm Est. 5/30 - 8/20	<i>None (please see text)</i>	Possible Summer Chinook Study
2027	0% Firm April – late May	9% Firm Est. 5/30 - 8/20	<i>Possible HCP spring survival study (please see text)</i>	Possible Summer Chinook Study
2028	0% Firm April – late May	9% Firm Est. 5/30 - 8/20	2023 Forecast: None	TBD

Table 2. Rock Island Best Estimates for Fish Spill Level, Dates, and Survival Studies, 2023-2028

Year	Spring Spill - Best Estimate	Summer Spill - Best Estimate	Spring Fish Study	Summer Fish Study
2023	10% Firm Est. 4/17 – 5/29	20% Firm Est. 5/30 - 8/20	None	Possible Summer Chinook Study
2024	10% Firm Est. 4/17 – 5/29	20% Firm Est. 5/30 - 8/20	None	Possible Summer Chinook Study
2025	10% Firm Est. 4/17 – 5/29	20% Firm Est. 5/30 - 8/20	None	Possible Summer Chinook Study
2026	10% Firm Est. 4/17 – 5/29	20% Firm Est. 5/30 - 8/20	None	Possible Summer Chinook Study
2027	10% Firm Est. 4/17 – 5/29	20% Firm Est. 5/30 - 8/20	None	Possible Summer Chinook Study
2028	10% Firm Est. 4/17 – 5/29	20% Firm Est. 5/30 - 8/20	None	TBD