Tacoma Power

Energy Risk Management/Power Supply Update – Q1'2021

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Energy Risk Manager

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Resource Operations Lead, Resource Operations & Trading



Power Supply

Section 1

Power Supply Update – Overview

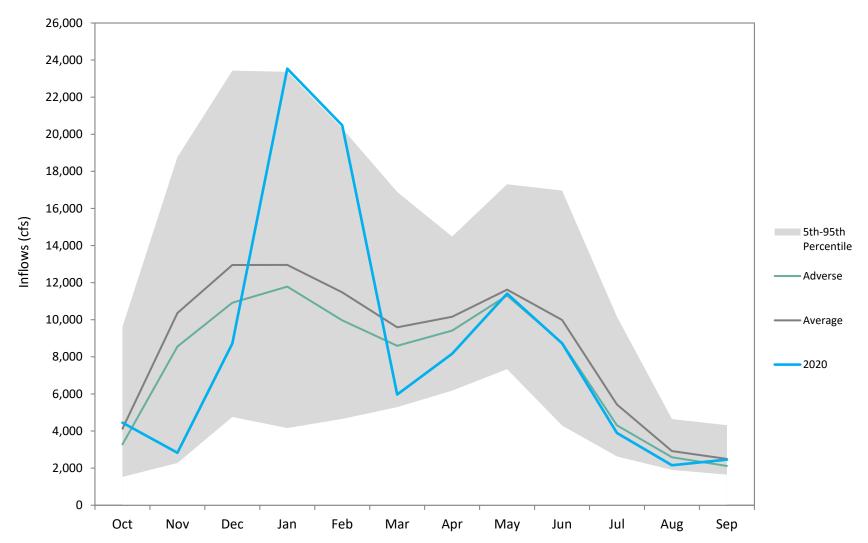
Graph 1: Tacoma Power Hydroelectric Resource Overview

(Map of Tacoma Power's Hydroelectric Projects and the Federal System)



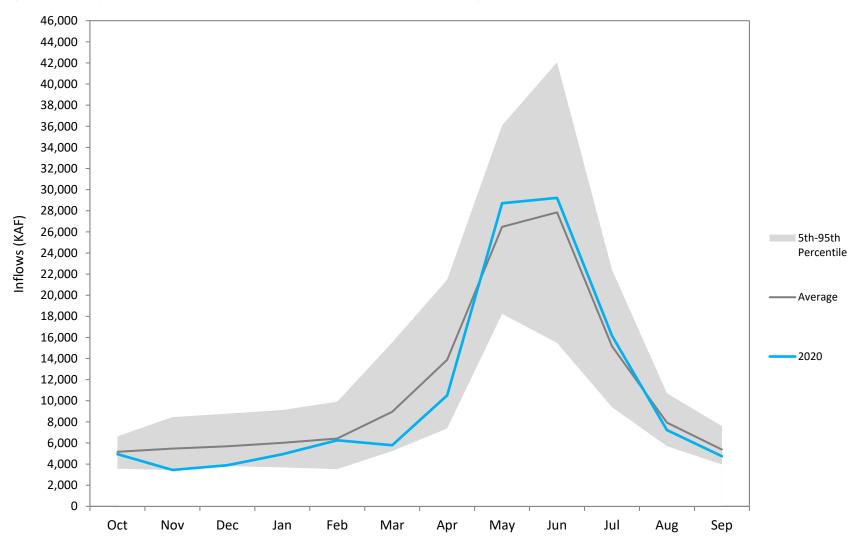
Graph 2: Review Tacoma System Inflows 2020

(Tacoma System Hydro Inflows, Water Year 1929 – 2020)

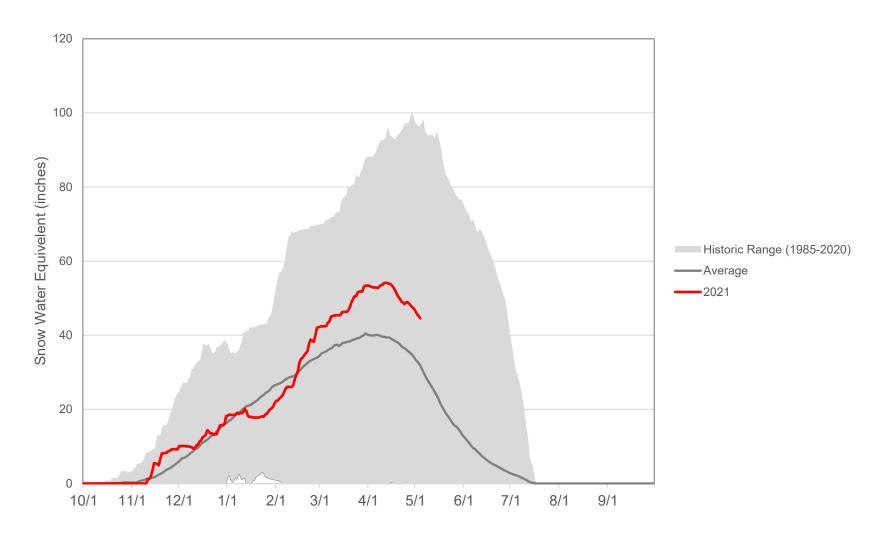


Graph 3: Review Federal System Inflows 2020

(Federal System Hydro Inflows, Water Year 1961 – 2020)

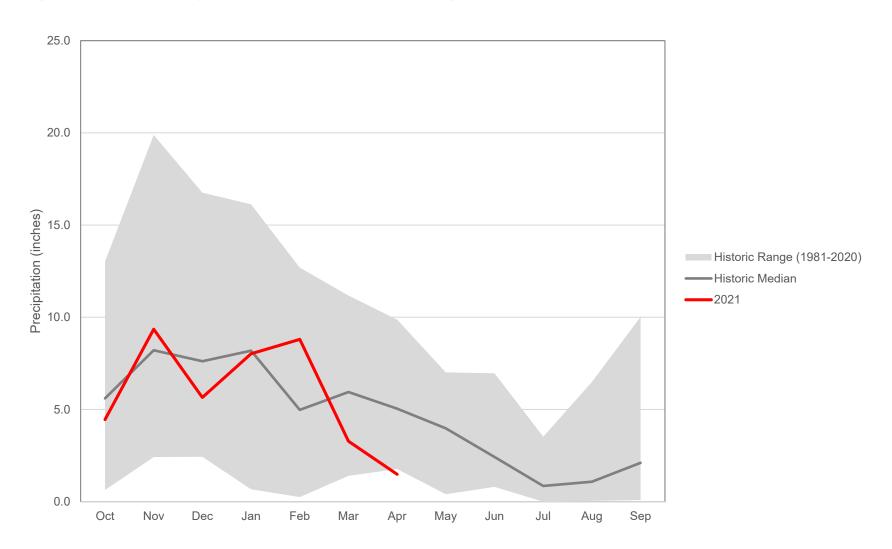


Graph 4: Snowpack – Peaked Above Normal, Began Melting Mid-April (Snowpack at June Lake, Water Year 1985 – 2021)



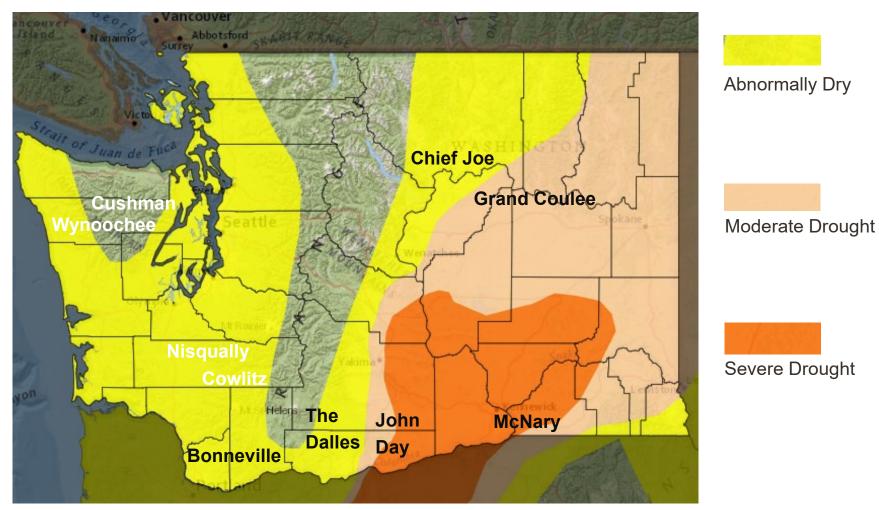
Graph 5: Very Low Precipitation in March and April

(Precipitation at Mayfield, Water Year 1981 – 2021)

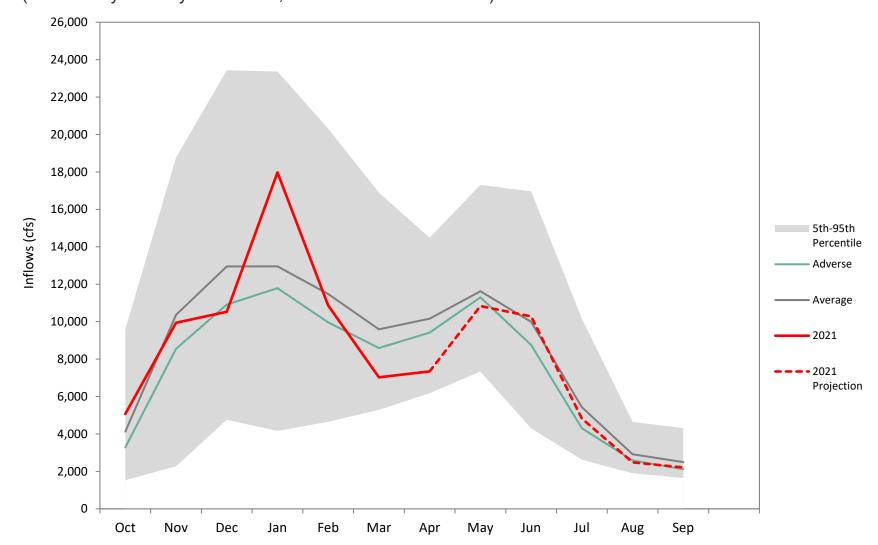


Graph 6: Drought Conditions Across the Northwest

(Current U.S. Drought Monitor Conditions for Washington)

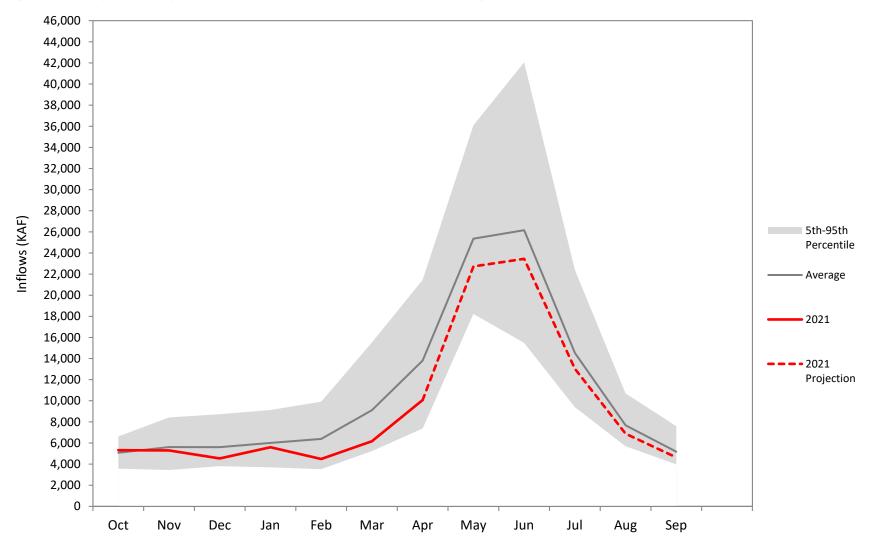


Graph 7: Tacoma System Inflows – Low Inflows in March and April (Tacoma System Hydro Inflows, Water Year 1929 – 2021)



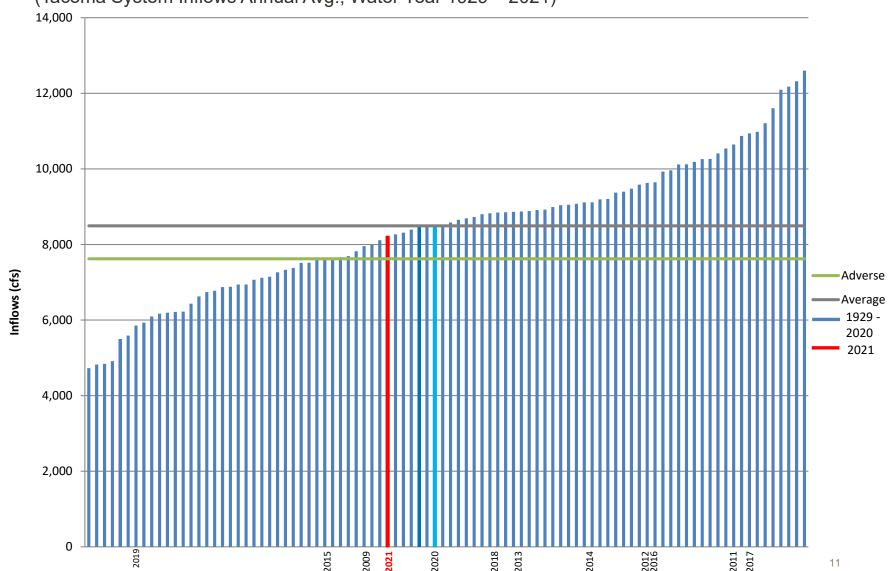
Graph 8: Federal System Inflows – Below Normal

(Federal System Hydro Inflows, Water Year 1961 – 2021)

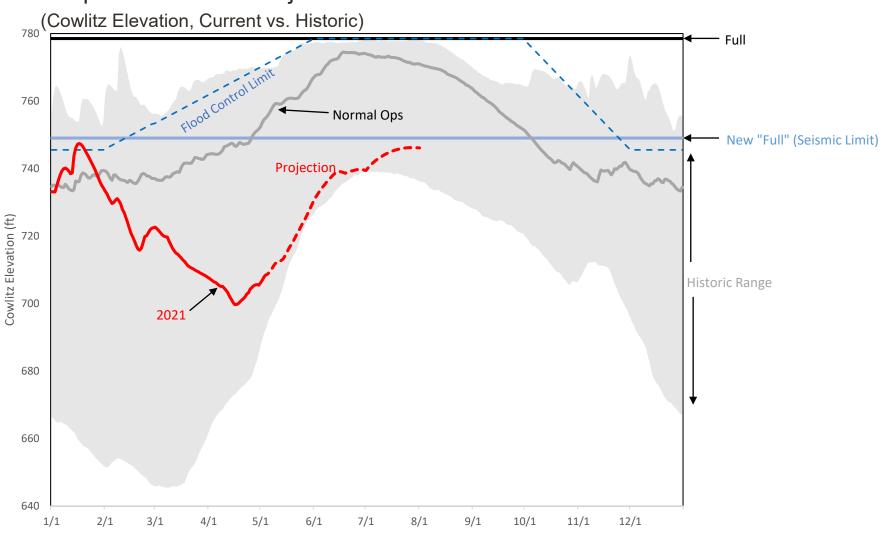


Graph 9: WY 2021 Tacoma Projected System Inflows – Near Normal

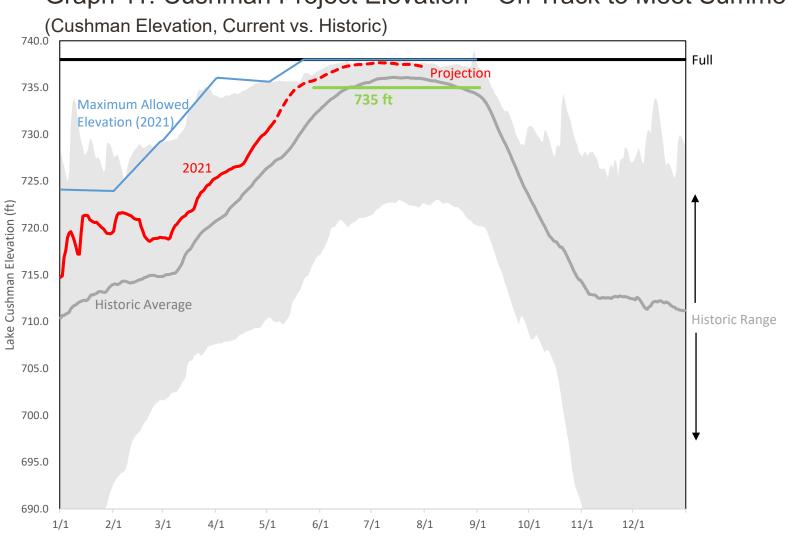
(Tacoma System Inflows Annual Avg., Water Year 1929 – 2021)



Graph 10: Cowlitz Project's Elevation – Drafted To Accommodate Runoff



Graph 11: Cushman Project Elevation – On Track to Meet Summer Target



Wholesale Net Revenues

Section 2

Energy Risk Management

Energy Risk Management Overview

Energy Risk Management Program Objective

The objective of the program is to manage the variability from our power supply portfolio

Program Components

Identify & Quantify Risks

Risk Tolerance & Policies

Hedging Program & Metrics

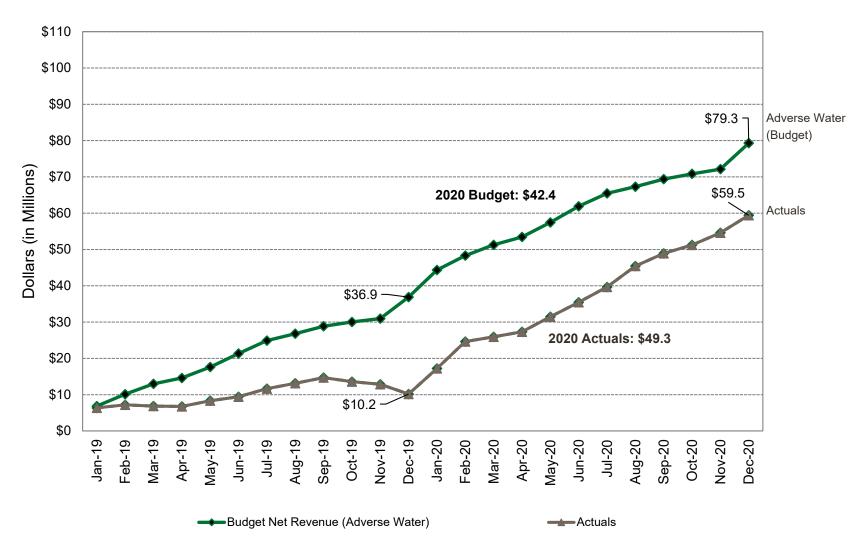
Trade Controls & Processes

Monitor & Report Risks

Wholesale Net Revenues – 2019/2020

Graph 12: Review 2020 Actual Net Revenues \$7M Above Budget

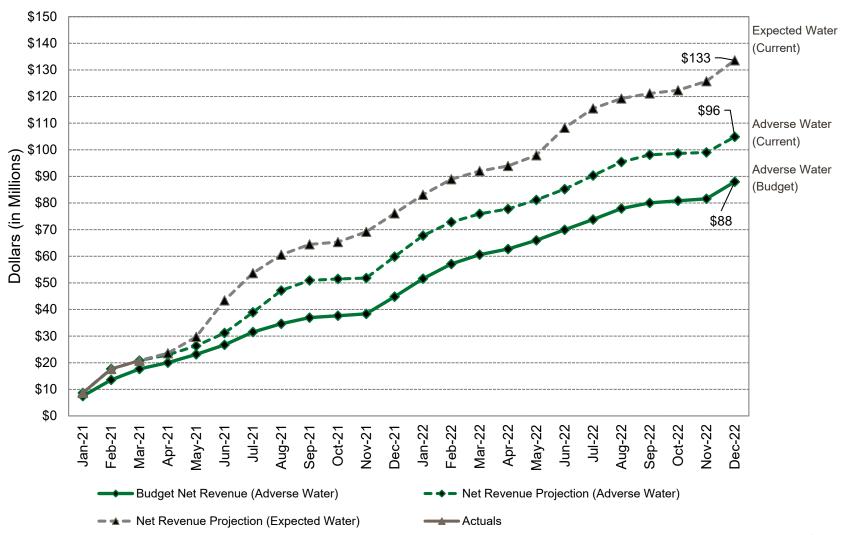
(Cumulative Actual vs. Budget Wholesale Net Revenues, 2019 – 2020)



Wholesale Net Revenues – 2021/2022

Graph 13: Strong Start to 2021 with Early Projections Above Budget

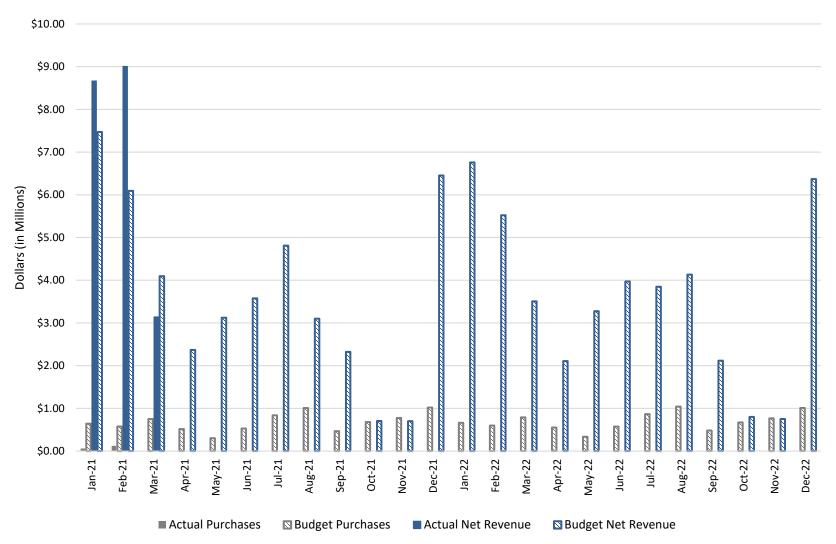
(Cumulative Actual vs. Budget Wholesale Net Revenues, 2021 – 2022)



Wholesale Net Revenues – 2021/2022

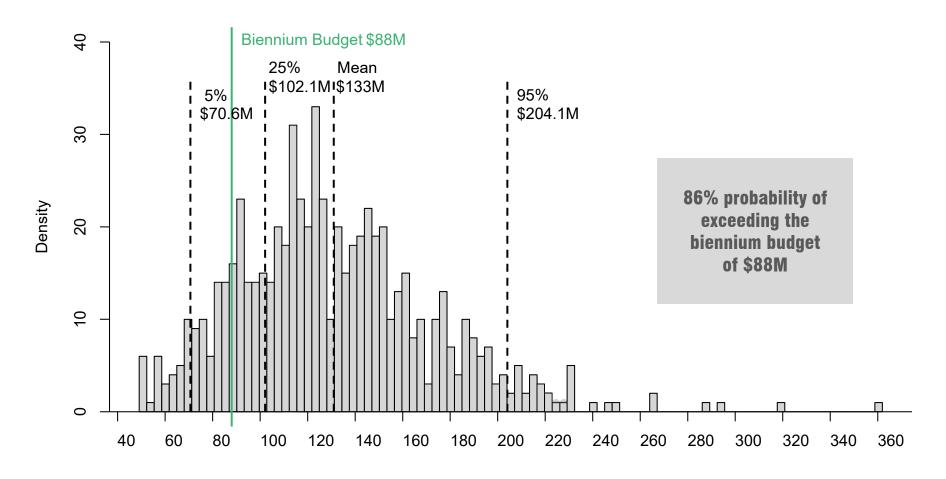
Graph 14: Q1 Actual Net Revenue is \$3M Above Budget

(Monthly Actual vs. Budget Wholesale Purchases and Net Revenues)



Wholesale Net Revenues – 2021/2022

Graph 15: Early Projections Show High Probability of Meeting Budget (Risk Model Simulation of Biennial Net Revenues, 2021 – 2022)



Wholesale Net Revenue (Million Dollars)