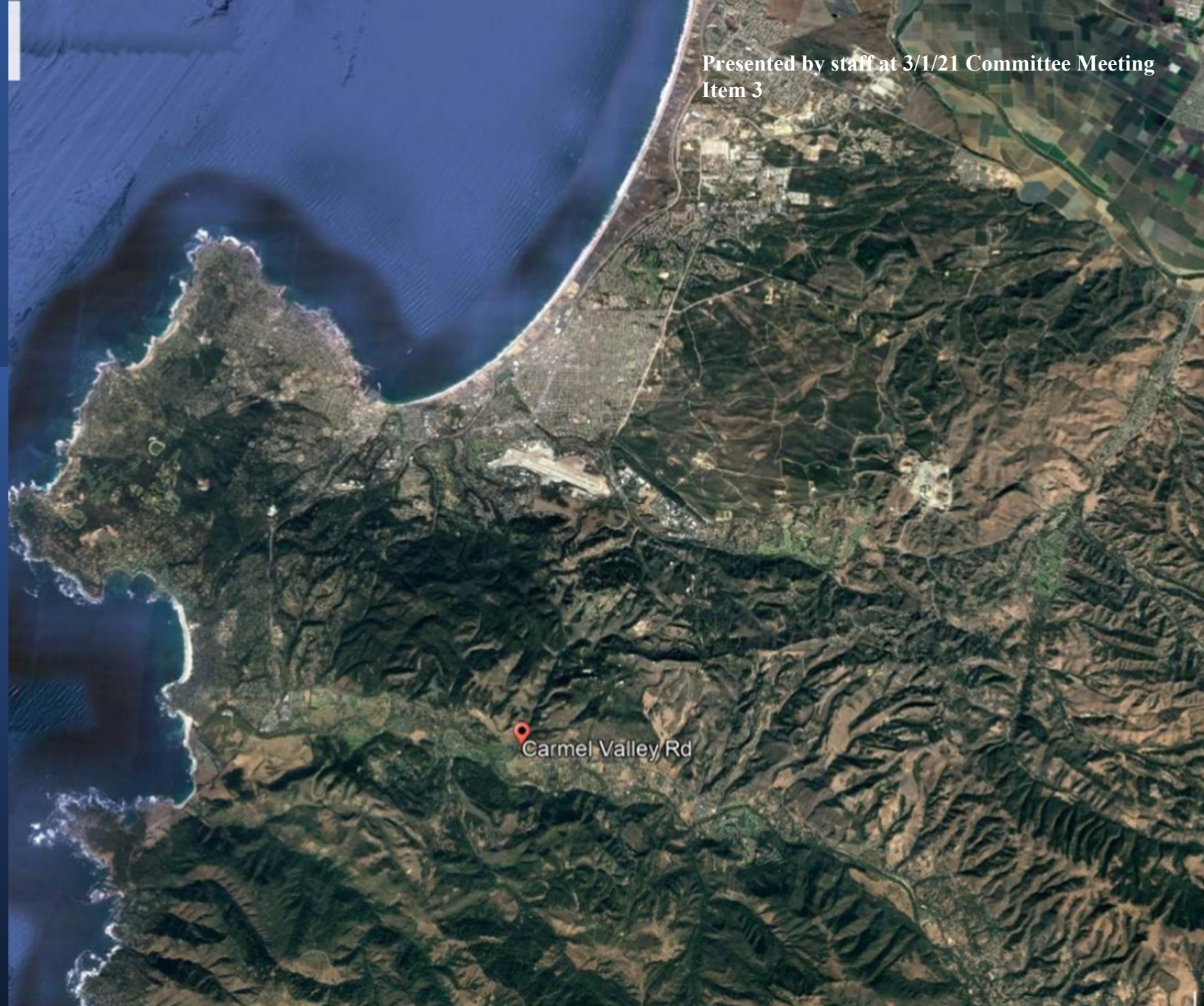


Source Water Pumping in Monterey

Presented by staff at 3/1/21 Committee Meeting
Item 3





Carmel Valley Rd



Carmel River Wells

Carmel Valley Rd

Sand City Desal Wells



Carmel River Wells





Sand City Desal Wells

This satellite map shows the coastal city of Carmel, California. The ocean is on the left, and the city's coastline curves along the top and left. The inland area is characterized by a complex network of roads and green, hilly terrain. Three specific areas are highlighted with colored overlays and labels: a yellow circle near the coast, a green circle slightly inland, and a large blue oval in the southern inland region. The labels are enclosed in white rectangular boxes.

Seaside Region Wells

Carmel River Wells

Carmel Valley Rd



Sand City Desal Wells

This satellite map shows the coastal region of Carmel, California. The ocean is on the left, and the land features a mix of urban areas, agricultural fields, and rugged hills. Four specific well locations are highlighted with colored shapes: a yellow circle for Sand City Desal Wells, a large green circle for Seaside Region Wells, a small green oval for ASR Wells, and a large blue oval for Carmel River Wells. A road marker for Carmel Valley Rd is also visible within the blue oval.

ASR Wells

Seaside Region Wells

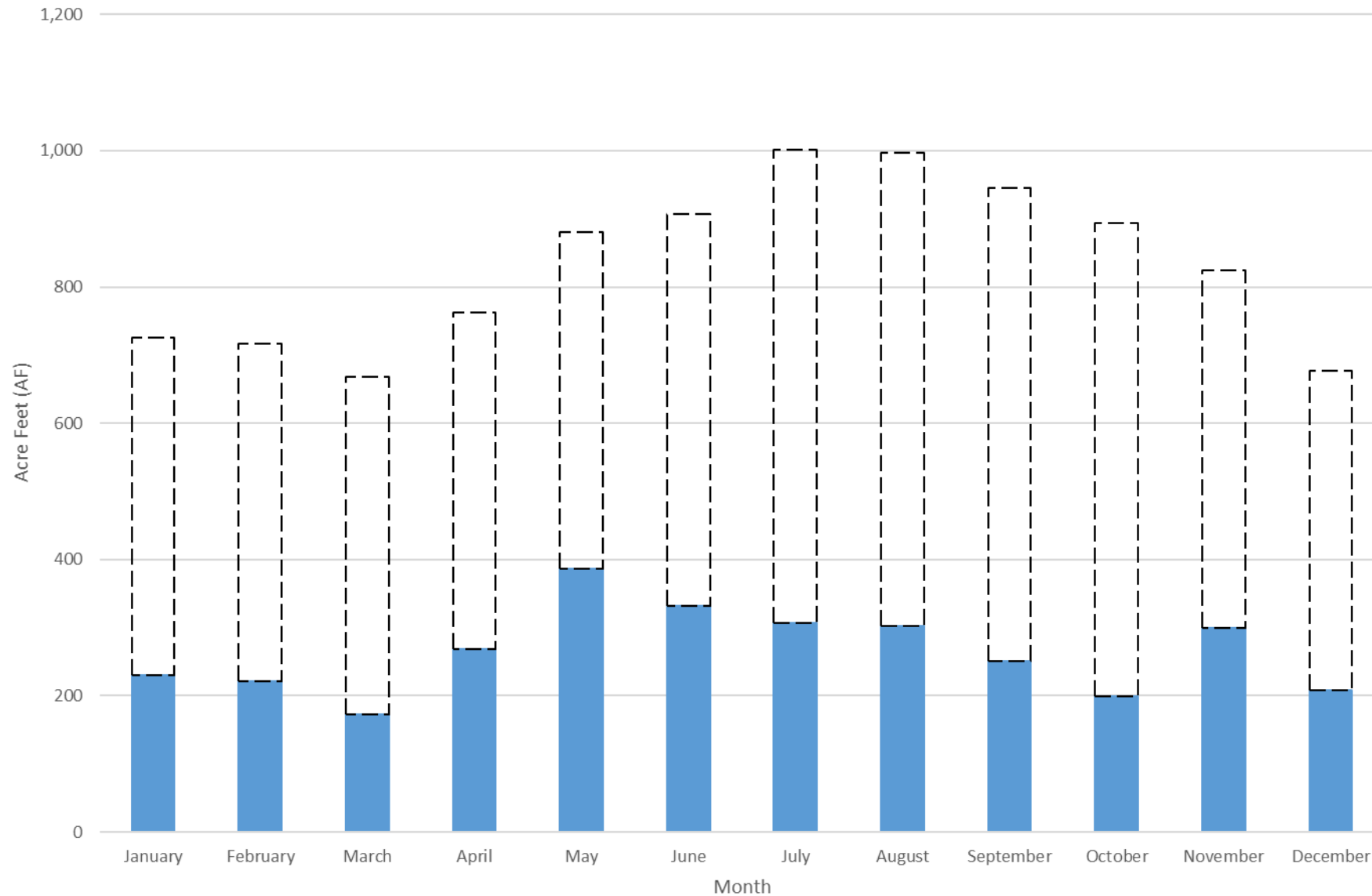
Carmel River Wells

Carmel Valley Rd



How different
source waters
vary monthly
after 2021

Monterey Main System Water Plan for WY 21-22



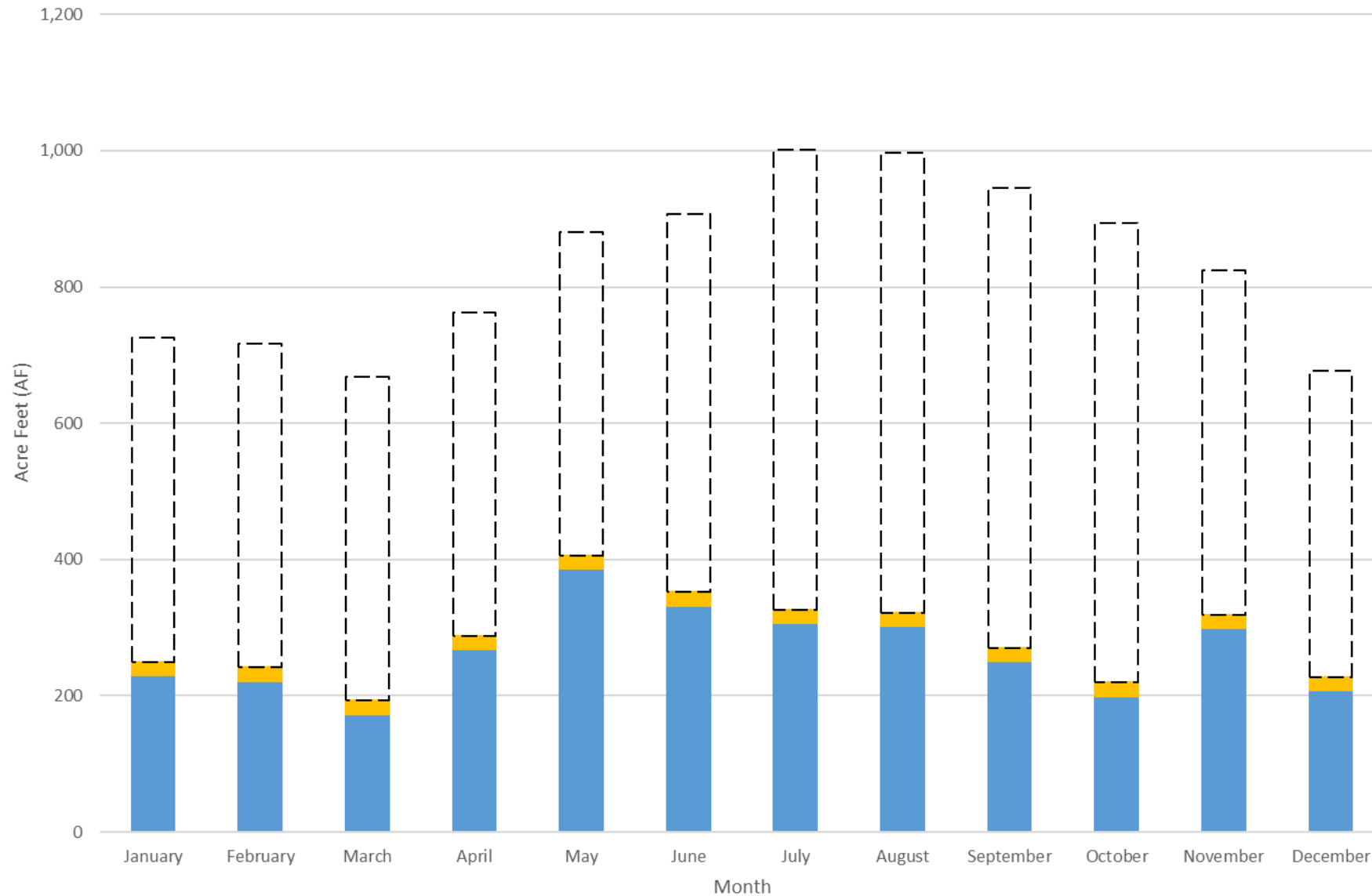
■ Carmel River

□ Remaining System Demand

Maximize 3,376 AF to minimize over-pumping of Seaside Basin

■ Carmel River □ Remaining System Demand

Monterey Main System Water Plan for WY 21-22



■ Sand City Desal

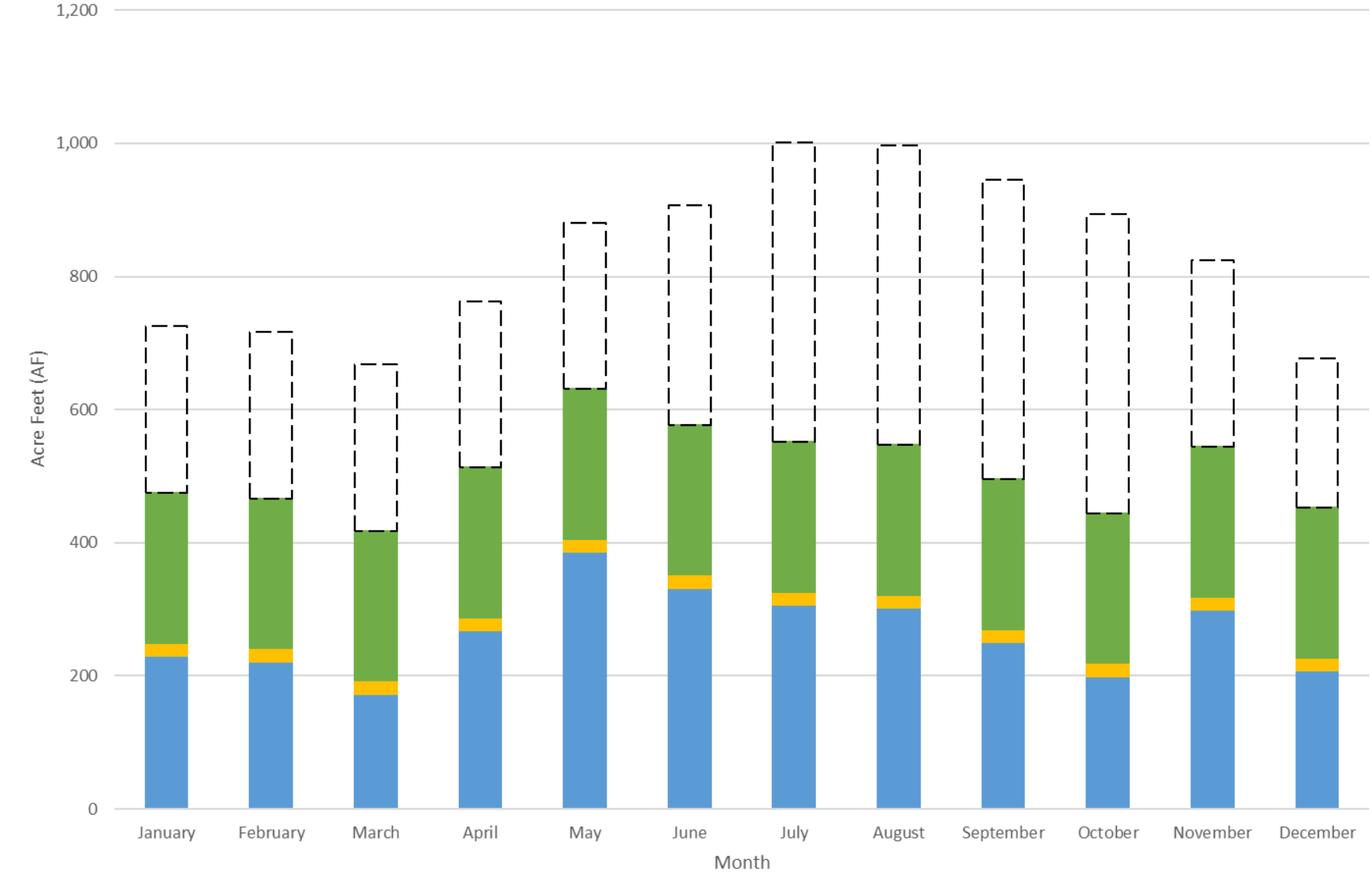
■ Carmel River

□ Remaining System Demand

Sand City Desal monthly based on historic average, plus increase from new intake well

■ Carmel River ■ Sand City Desal □ Remaining System Demand

Monterey Main System Water Plan for WY 21-22



■ Seaside Wells

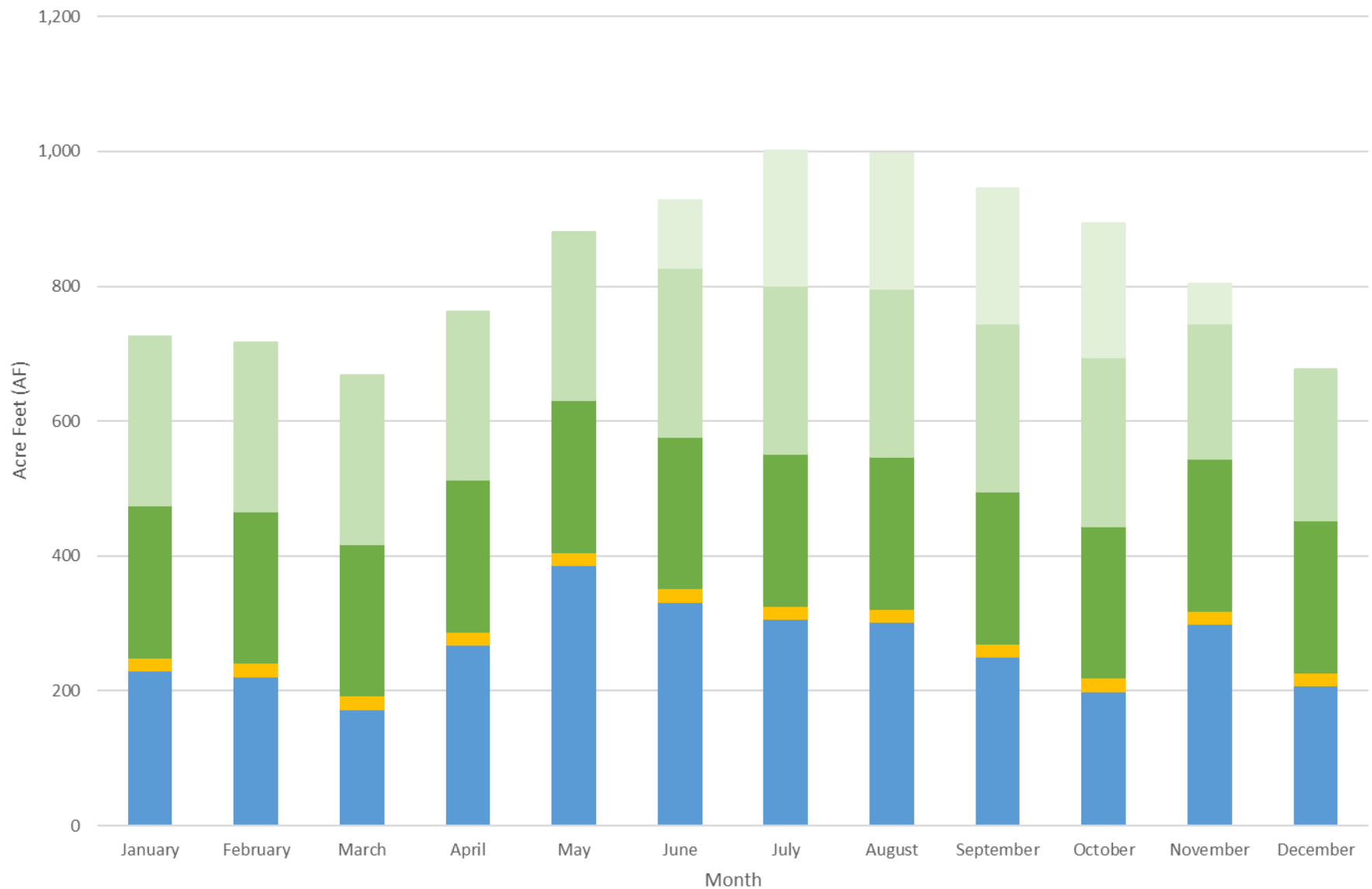
■ Sand City Desal

■ Carmel River

□ Remaining System Demand

“Seaside Wells” simply refers to five CAW wells in City of Seaside west of GJM

Monterey Main System Water Plan for WY 21-22



ASR Wells 3 & 4

ASR Wells 1 & 2

Seaside Wells

Sand City Desal

Carmel River

ASR Well Extraction
could be required 12
months of the year

Carmel River Sand City Desal Seaside Wells* ASR Wells 1 & 2 ASR Wells 3 & 4**



How post 2021
monthly trends in
source water relate
to parallel pipeline
and ASR operations



Forest Lake Res.

ASR, Pure Water and
Seaside Native to Forest
Lake

Crest Res.

Carmel River Water
to ASR 3&4

Carmel Valley Rd

If ASR well extraction occurs 12
months of the year and no
parallel pipeline, then likely not
possible to operate ASR Injection.

Timing of Operations of ASR and PWM

ASR Injection – Carmel Valley Wells Produce wells, water moves north in General Jim Moore towards ASR wells for injection of Carmel River Water

PWM Recovery – ASR wells produce water from the Seaside Groundwater Basin, water moves south in General Jim Moore and through Monterey Pipeline to Forest Lake Tanks

ASR Recovery – ASR wells produce water from the Seaside Groundwater Basin, water moves south in General Jim Moore and through Monterey Pipeline to Forest Lane Tanks

Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep

ASR Injection



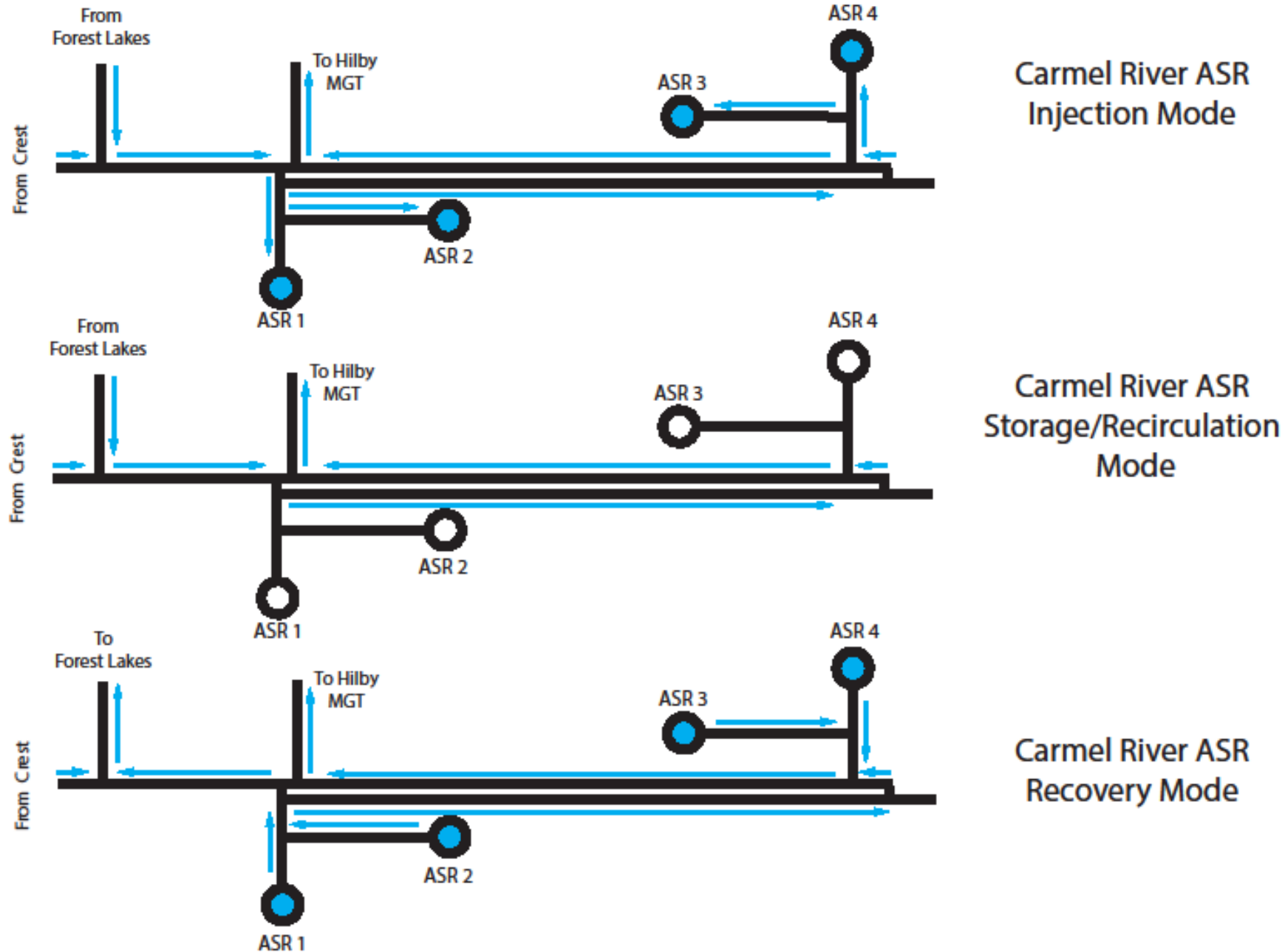
PWM Recovery



ASR Recovery



Current Carmel River ASR Operations



Functionality of Proposed Pipeline

