Benefit Category	Source
Water Supply Benefits	
State-wide water supply reliability	1.1
State-wide water supply reliability	2.5.2.1
State-wide water supply reliability	2.5.2.1
State-wide water supply reliability	6.4
State-wide drought resilience	8.4
Operational flexibility for the Central Valley Project (CVP) and the State Water Project (SWP)	2.5.2
Consistency with the Governor's Executive Order N-10-19, which identified the state's current water challenges	28-78 and 28-80
Consistency with the 2020 Water Resilience Portfolio, which identifies the need to expand smart surface water storage where it can benefit water supply and the environment	ES-2, Project Background
Consistency with CALFED which sought to balance environmental and water supply challenges in our state	2.1.1
Ecosystem Benefits	
Provide incremental Level 4 Refuge water supply benefits as identified under the Water Storage Investment Program.	2.5.5
Provide additional flow into the Yolo Bypass to benefit delta smelt. Deliveries would increase desirable food sources in the late summer and early fall.	**ES.5**

Provides a flexible water asset dedicated to the environment. Tests concepts proposed by the Public Policy Institute of California to better manage water for the needs of the environment in California.	11-121
Involvement on technical and advisory teams (e.g., Sacramento River Temperature Task Group) that would provide opportunities to work collaboratively to achieve species benefits in the Sacramento Valley and the Delta.	**2.5.2.1**
Exchanges and investment by Reclamation have the potential to assist the CVP and SWP in meeting their regulatory obligations, authorized purpose, and improving conditions to protect, restore and enhance fish, wildlife, and associated habitats.	11-120
Increases freshwater habitat for species such as such as bald eagle, dabbling ducks, water birds, along with gull and pelican species.	10.2.2.22
Increases freshwater habitat for species such as such as bald eagle, dabbling ducks, water birds, along with gull and pelican species.	10.4
Water source for terrestrial species such as elk, deer, and badger.	10.4
Anadromous Fish Benefits	
Enhanced opportunity for cold water pool management in Shasta Lake.	11.3.2
Enhanced frequency and amount of spring pulse flows in the upper Sacramento River.	2.5.2.1
Enhanced frequency and amount of spring pulse flows in the upper Sacramento River.	2.5.2.1
Better ability to maintain stable river flows in the upper Sacramento River in the fall.	5.2.1

Better ability to maintain stable river flows in the upper Sacramento River in the fall.	5.4.1
Better ability to maintain stable river flows in the upper Sacramento River in the fall.	5.4.1
Exchanges with Shasta Lake would be formulated to target cold-water pool preservation and anadromous fish benefits.	11.1
Project results in an overall increase in the population of endangered winter-run Chinook salmon.	11.2.4.3
Project results in an overall increase in the population of endangered winter-run Chinook salmon.	11.2.5.2

Flood Benefits	
The communities of Maxwell and Colusa, local agricultural lands, rural residences by impounding Funks Creek and Stone Corral Creeks.	5.6
Regional commerce and emergency services and evaluation routes by impounding Funks Creek and Stone Corral Creeks reducing the frequency and depth of water flooding on Interstate 5.	5.6
Regional communities by reducing flows in the Sacramento River during high flow events.	5.6
Economic Benefits	
Increase in construction income and jobs are expected to be larger than the decrease in agricultural jobs and income, resulting in an overall beneficial effect on regional economics	30.4
Increased recreational visitors and associated spending	30.4
Local employment benefits by providing medium-term construction jobs and long-term operations jobs	30.4
Other Local and Regional Benefits	

Recreational benefits include two primary recreation areas and a day-use boat ramp providing multiple recreational amenities, including campsites, boat access, horse trails, hiking trails, and vista points.	16.4
Improved safety and quality of local roadways after construction is complete	2.5.1.7

Quote

Twenty-three public water agencies currently comprise the Authority's Reservoir Committee. Reservoir Committee members would provide funding for the Project's construction and operations and would receive
The Project would provide water supply reliability and water supply-related environmental benefits to the
Water would be held in storage in Sites Reservoir until requested for release by a Storage Partner. Water releases would generally be made from May to November but could occur at any time of the year, depending on
Alternatives 1, 2, and 3 would also result in supporting and increasing water supply reliability for other beneficial uses designated by the water quality control plans including recreation, municipal supply, and agricultural supply. The operation of Sites Reservoir would provide new recreational opportunities. Operations would
Modeling showed that simulated groundwater levels would begin to increase as compared to baseline historic levels or levels under the No ActionProject Alternative. In most years, the reservoir seepage inflow to groundwater would provide a benefit in terms of additional shallow groundwater. During critical drought years, groundwater levels were projected to be between 30 to 20 feet higher along the western margin of the Colusa
The proposed operation of the Project includes exchanges of water with the CVP and SWP. Exchanges have the potential to assist the CVP and SWP in meeting their regulatory obligations and their authorized purposes including to protect, restore and enhance fish, wildlife, and associated habitats, provide water supply and
The presence of Sites Reservoir is expected to help mitigate or reduce impacts of climate change. Increases in precipitation extremes, such as flooding during the wet season and drought during the dry season, are expected to occur more frequently in the future. Sites Reservoir would retain flood flows from Stone Corral and Funks Creeks, providing a flood benefit in Colusa County, particularly the city of Maxwell, surrounding farmland, and road infrastructure. Those flows plus the diversions from the Sacramento River provide increased water deliveries to Storage Partners during drier conditions. The Project is expected to release the most water during summer months (June to September) under Critically Dry Water Year conditions (Table 28-23a to Table 28-23c).
The Project would provide water to downstream users when most needed. The Project under climate change conditions would cause an increase in exports July through November (Table 28-25b and Table 28-25c) with respect to the NAAs of each climate scenario. While the increase in exports provides some resilience to decreases in storage and deliveries, it may not offset them. Habitat flows in Yolo Bypass would result in increased Delta outflows in fall (August to October). The Project could mitigate or reduce the climate change

The 2020 Water Resilience Portfolio (Portfolio) was completed in July 2020 and identifies the need to expand smart surface water storage where it can benefit water supply reliability and the environment. To achieve that goal, the Portfolio proposes the acceleration of state permitting for projects selected under the WSIP that protect and enhance fish and wildlife resources and water supply reliability. The Portfolio specifically identifies the Project as one of the smart water storage projects that should qualify for such expedited permitting.
CALFED initially identified more than 50 potential surface storage locations during development of its EIR/EIS and retained several reservoir locations statewide for further study. The screening criteria applied to the potential locations indicated a preference for offstream surface water storage to avoid redirected impacts on

The ecosystem benefits funded by the CWC include providing water for Incremental Level 4 Refuge water needs for Central Valley Project Improvement Act (CVPIA) refuges both north and south of the Delta and providing additional flow into the Yolo Bypass to benefit delta smelt (Hypomesus transpacificus).
Water released from Sites Reservoir would be used to benefit local, state, and federal water use needs, including public water agencies, anadromous fish species in the Sacramento River watershed, wildlife refuges and habitats, and the Yolo Bypass to help supply food for delta smelt (*Hypomesus transpacificus*).

The ability of the Project to capture and store water that cannot otherwise be captured and stored by Reclamation and to exchange water with Shasta Lake may allow for flexibility to provide environmental benefits to anadromous fish in the upper Sacramento River under changing climate scenarios.

Involvement on the technical and advisory teams would also provide opportunities to work collaboratively to achieve species benefits in the Sacramento Valley and the Delta.

The additional water supply provided by Sites Reservoir may provide opportunities for improved management of salmonid habitat, particularly in the Sacramento River above RBPP. By exchanging Sites' water for CVP water, Reclamation has an additional tool to maintain and improve habitat for salmonid spawning, incubation, rearing, and migration. By delivering water to CVP contractors from Sites Reservoir, Reclamation may maintain supply in Shasta Lake for important periods to support these habitat conditions. The possible additional water supply in Shasta Lake can then be allocated during real-time management scenarios for a number of uses (e.g., cold-water pool maintenance, spring pulse or fall pulse flow events, reduced fall flows) that may provide enhanced anadromous fish benefits. These benefits may include protecting and increasing the cold-water pool in Shasta Lake, which is essential for temperature control in the reaches below Keswick Dam that are critical for salmonid egg incubation during Dry and Critically Dry Water Years. Maintenance of water in Shasta Lake may also provide
The modeling conducted for this document includes some scenarios to maintain water supply in Shasta Lake. However, these scenarios are difficult to model and rely to a great extent on real-time conditions and real-time management actions. Benefits to anadromous fish can be realized through varying ways depending on specific in-year conditions. Thus, the modeling provided in this document likely underestimates the potential for exchanges
Implementation of Alternative 1 or 3 would have the beneficial effects of providing new bald eagle foraging habitat (Sites Reservoir) and new nesting sites or wintering habitat because of the proximity to the new foraging habitat (12 to 20 years after reservoir filling begins).

Speaks spefically to bats, rather than other terrestrial species but water source logic should apply: "The completed reservoir would also benefit special-status bats by providing a new drinking water sources and

During the period when these reservoirs are thermally stratified (generally April through November), cold-water fish within the reservoir reside primarily within the deeper layers of the reservoir where water temperatures remain suitable. Implementation of the cooperative operations agreements with Reclamation and DWR could alter reservoir storage during this period; implementation could also alter the reservoir's cold-water pool
The pulse flow protection measure addresses the survival of migrating juvenile winter-, spring-, fall-, and late fall–run Chinook salmon (Oncorhynchus tshawytscha), and steelhead (Oncorhynchus mykiss) through the middle reaches of the Sacramento River. Pulse flows during this period would provide flow continuity between the upper and lower Sacramento River (i.e., below Wilkins Slough) and are expected to enhance survival of these migratory fish (Michel et al. 2015, Michel et al. 2021; Notch 2017) as fish movement is thought to occur in
Exchanges with Shasta Lake and/or Project Storage Partners may also assist Reclamation in making spring pulse flows for the benefit of juvenile salmon out-migration in the lower Sacramento River.

To achieve any water supply reliability under this annual, seasonal, and regional hydrologic variability necessitates that water from precipitation in the winter and spring be stored for use in the summer and fall.

Exchanges with Shasta Lake would support cold-water pool management, fall flow stability, and spring pulse flow actions… Water would be retained in Shasta Lake or Lake Oroville for release later in the summer or fall for the benefit of Storage Partners.
Changes to storage in Lake Oroville are expected to be minimal, with small increases in storage in the summer and fall of Critically Dry Water Yearschanges associated with Sites Reservoir exchanges

This increase in diversions to Sites Reservoir storage will make water available to Reclamation for use in management of the cold-water pool in Shasta Reservoir. Reclamation could deliver water to its contractors from Sites Reservoir in exchange for releases from Shasta Lake and retain an equivalent amount of water in Shasta Lake for use in temperature or flow management later in the year. While these exchanges are not likely to yield
The Big Notch Project has been developed to significantly improve fish passage and increase floodplain fisheries rearing habitat in the Yolo Bypass and the lower Sacramento River basin by constructing a notch with operable gates on Fremont Weir (Bureau of Reclamation 2019). The goal of the project is to increase the number of
The upper Sacramento River's water temperatures are controlled by selective withdrawal through the temperature control device (TCD) in Shasta Lake and by balancing releases between Lewiston Reservoir (Trinity River) and Shasta Lake. The water temperature operations have three principal objectives: (1) provide enough cold water to optimize survival of the current year's winter-run Chinook salmon eggs and alevins and those of other salmonids (Chinook salmon and steelhead), (2) stabilize water levels through the fall to avoid dewatering redds and stranding juveniles of winter-run and other salmonids, and (3) conserve and rebuild Shasta storage in the fall and winter to provide the cold-water pool resources needed to optimize survival of the next year's winter-run eggs and alevins and those of other salmonids. Pursuant to Water Right 90-5 and 91-1, Reclamation

Alternatives 1, 2, and 3 would result in a direct reduction in runoff from the Stone Corral Creek and Funks Creek watersheds and associated historic flooding downstream, including the community of Maxwell.

Besides the minor decreases in flood flows on the Sacramento River as described in the preceding paragraphs, a flood protection benefit would also be provided for the areas downstream of Sites Reservoir (specifically on the floodplains of Stone Corral Creek where flooding has historically occurred). As described in the Water Storage Investment Program (WSIP) application (Sites Project Authority 2017), direct flood control benefits would be provided in the Stone Corral Creek and Funks Creek watersheds (including the community of Maxwell) by reducing the size of the floodplain within the region. It is estimated that the Project would reduce the 100-year
Operational impacts on the flood control regime of the greater Sacramento River system are expected to be minimal and result in mostly decreases in monthly average flow and the existing flood volume.

The previous modeling found that the overall effect of construction on regional economics would be positive and beneficial because of increased labor income and jobs in Glenn and Colusa Counties during construction as compared to the No Project Alternative. This increase was determined to be greater in magnitude than the economic effect of temporary decreases in agricultural labor income and jobs.

This effect would be beneficial due to the influx of recreational visitors and the benefit to the local economy from recreation-related spending ... as compared to the No Project Alternative.
The previous economic modeling quantified operational effects using IMPLAN and found that there would be a permanent increase in direct and indirect labor income that would be correlated with a permanent increase in direct jobs and total jobs in affected counties.

In addition to the Sites Reservoir, the Project would include construction of two primary recreation areas (the Peninsula Hills Recreation Area and the Stone Corral Creek Recreation Area), and a day-use boat ramp area.

Local access roads that would be improved or relocated for construction purposes would provide reliable infrastructure for the traveling public, accommodate transportation needs, and be consistent with state and local design standards. These improved roads would enable construction vehicles to safely travel and pass one