

Coyote Creek Flood Protection Project and Coyote Creek Flood Management Measures Project Frequently Asked Questions

Below are the 24 most frequently asked questions related to the Coyote Creek Flood Protection Project and Coyote Creek Flood Management Measures Project received during the three Coyote Creek meetings held in June 2020. The questions in red were unanswered during the last June meeting as the meeting ended as scheduled.

1. Will any measures be taken to protect or enhance riparian or stream health as part of the project?

This project is being designed to require little to no stream-channel changes, leaving the stream habitat undisturbed. The design simplifies the regulatory compliance requirements for this project as the alternatives being considered are all outside the creek channel.

2. What determines the decision to acquire or raise a home? Were other options explored?

In 2018, Valley Water presented various flood risk reduction options to the public and stakeholders during the project's planning phase. The options included floodwalls, passive barriers, acquisition, elevation, upstream detention, and wet floodproofing homes. Valley Water incorporated public input to select the preferred alternatives for the project and followed the Natural Flood Protection Framework, a Valley Water Board policy to choose the least environmentally damaging practicable option. After an approximately 2-year planning process, acquisition or elevation were deemed the preferred alternatives for some project areas.

3. Acquiring or raising the ten or so individual properties along Coyote creek is a costly and invasive mitigation project for a very infrequent flooding event. Most, if not all, of the properties have been through several flooding events to date and have been restored to full functionality at a small fraction of the cost of buying or raising them. Why is there no option for Valley Water to provide much lower-cost funding for relatively rare property repairs?

While many properties have survived multiple floods, the property owners have had significant and costly repairs. Rest assured, we do not consider this a one-size-fits-all approach and will work with each property owner to discuss options and reach a consensus when possible. Valley Water staff values community input and finding the best alternatives to improve flood protection for the community.

4. What type of easements will you need for Naglee Park residents, and how does this typically influence the property values of property with an easement?

The purpose of the easement or acquisition will vary based on location. Easements along floodwalls and similar elements will be for the installation and maintenance of the flood protection elements. Elevated homes will also have easements to prevent owners from enclosing the space below the house in the future and to address other requirements associated with the project.

Owners will be compensated for the easement and any impacts on their remaining property. Fair market compensation for any required easement is determined by a certified appraiser obtained by Valley Water. The long-term benefit to the property and owner is realized in the flood protection provided by the project.

5. How much real estate does Valley Water now own that is developed and used to generate revenue. Is that a permanent use or transitional? Would the homes purchased in Naglee Park be maintained as rentals or demolished for habitat and drainage areas?

Currently, Valley Water owns 58 residential units throughout Santa Clara County that are rented at fair market value. Some of the 58 properties were acquired in place of channel modifications, and some have been purchased from willing sellers in advance of flood protection projects. The disposition of the homes acquired at Naglee Park will be determined by project need.

6. What does Valley Water intend to do with the houses purchased? What happens if the identified properties for purchase or raising are left as is?

Valley Water intends to continue to rent the properties to the current tenants in the short term until construction is ready to begin. At that time, Valley Water will work with the tenants to help relocate them. Subsequently, the structures are expected to be demolished, and the property returned to a natural riparian corridor. **Properties with raised houses will be protected up to a 20-year event and still be located within the 100-year floodplain.**

If the properties in question are left as is, they will continue to be at risk for flooding in the future. This risk will result in repeated costly repairs, loss of use, and potential life safety issues.

7. What impact will the draining of Anderson Reservoir have on wildlife? When can we expect to see Anderson Reservoir filled with water and working as intended?

As part of the FERC Order Compliance Project (or FOCP), the initial lowering of water levels will reduce habitat for fish in the reservoir. However, even with the reservoir at the minimum pool, it will still cover approximately 150 acres and hold 2,850 acre-feet of water (roughly the

size of Stevens Creek Reservoir). We anticipate this volume of water will still support aquatic habitat for warm water reservoir fishes. Other wildlife species, such as eagles and other opportunistic feeders, may take advantage of the increased accessibility to fish while the reservoir is at lower levels. Terrestrial wildlife species that rely on the reservoir as a drinking source will continue to use the reservoir but may become more reliant on nearby tributaries, ponds, and other water sources.

When construction begins for the Anderson Dam Seismic Retrofit Project (ADSRP), the reservoir will be entirely emptied. We anticipate this work starting in the spring of 2025. Valley Water is actively working with the resource agencies to develop plans to avoid and minimize wildlife impacts during that time.

Anderson Reservoir cannot provide consistent releases into Coyote Creek downstream of Anderson with reduced water levels. The aquatic habitat in Coyote Creek will be maintained by releasing imported water into the creek. Valley Water does not anticipate significant impacts to wildlife below the dam. Depending on water availability during this drought, the imported water releases will provide a consistent water source, minimize streams going dry, and recharge groundwater supplies in Morgan Hill and South San Jose. Valley Water has plans to implement avoidance and minimization measures to provide aquatic habitat while Anderson Dam is offline and maintain groundwater recharge operations. These measures include the Cross Valley Pipeline Extension, installing chillers to keep cooler water temperatures for fish, and replacing the Coyote Percolation Dam.

We anticipate the reservoir will begin filling during the winter of 2029 from local rainfall runoff. As the construction site restoration nears completion in the spring/summer of 2030, the reservoir should be filled again.

8. Will any part of the Coyote Creek trail be closed during the Anderson reservoir dewatering process? Will any other recreational impacts occur?

Construction activities will not directly impact the Coyote Creek trail. However, portions of the Coyote Creek trail cross Coyote Creek via low flow crossings, which routinely flood during winter storm events. While the reservoir is at lower levels, the low flow crossings may be closed more frequently because the reservoir will not be used to hold back or capture winter storms. This is being done to comply with a mandate to keep the reservoir at 3% of its capacity until the ADSRP is completed.

Other recreational facilities will be closed while Anderson Dam is an active construction site, including:

- Toyon Group Picnic and Parking Areas; Serpentine Trail; Dam Crest
- Woodchoppers Flat

- Anderson Lake Park’s boating and fishing, boat and vehicle parking areas, and boat ramp; Coyote Road from the toe of the dam to the boat and vehicle parking areas; and Lakeview Trail is closed from the Anderson Launch Ramp parking lot trailhead to the westernmost junction with the Rancho Laguna Seca Trail.
- Fishing will be closed for the entire reservoir shoreline

9. You have used an approximate 20-year flood model - how much does this differ from a 100-year flood model? What is the estimated cost difference between these two types of projects?

The anticipated flows for a 100-year event would be significantly higher than a 20-year event flow (see table below) at a given location. A 100-year event has a 1% chance of occurring in any given year. If we were to design a project to provide a 100-year level of protection, the flood risk reduction measures within Coyote Creek would be extensive and very expensive. The hydraulic model we use has various elements such as the creek’s geometry, ground elevation, top of bank, etc., and these do not change in the model from flow to flow. As the flow (amount of water) increases, so does the water surface elevation.

The 100-year flood risk reduction improvements cost was estimated between \$500 million and \$1 billion in 2011. That cost estimate refers to a project which would provide 100-year flood protection, which would remove areas currently mapped on the FEMA 100-year floodplain. Such removal requires compliance with FEMA regulations, which dictate that the top of floodwall/levee must be 3 to 4 ft higher than the 100-year water surface elevation.

The current approximate project cost of 20-year flood protection is approximately \$80 million.

Coyote Creek		PEAK FLOW (cfs)								
Location	Catch Point	Drainage Area mi ²	43%	20%	10%	4% (25	2% (50	1%	0.5%	0.02%
			(2.33 year)*	(5 year)*	(10 year)	year)*	year)	(100 year)	(200 year)	(500 year)
Coyote Reservoir Inflow	1	120.4	4,000	7,300	10,400	14,500	17,600	20,900	23,900	27,900
Coyote Reservoir Outflow	2	120.4	3,100	5,100	6,900	9,200	10,900	12,700	14,200	16,200
Anderson Reservoir Inflow	3	195.1	4,200	7,100	9,700	13,000	15,400	17,900	20,100	23,000
Anderson Reservoir Outflow	4	195.1	1,800	3,600	5,400	8,000	10,000	12,200	14,100	16,900
Coyote D/S Fisher Creek	7	222.8	2,100	4,000	6,000	8,700	10,800	13,100	15,200	18,100
Coyote D/S Upper Silver	10	237.0	2,100	4,200	6,200	8,900	11,100	13,400	15,500	18,500
Coyote D/S Lower Silver @ US-101	14	292.7	2,400	4,600	6,800	9,800	12,200	14,800	17,100	20,300
Coyote @ I-880	17	320.4	2,500	4,800	7,100	10,300	12,700	15,400	17,700	21,000

10. So, is the cost of the 100-year projections five times higher than the 20-year projections?

No. The project cost of implementing 100-year flood protection was estimated to be between \$500 million and \$1 billion in 2011. The current approximate project cost of 20-year flood protection is approximately \$80 million.

In trying to contain 100-year flows within the creek channel, floodwalls and berms would be more widespread and higher than those proposed for the current, approximately 20-year flood protection project. For example, certain 20-year flood protection elements, such as passive barriers, might not be feasible due to the larger footprint they would need to be installed. More property acquisitions/elevations would be required throughout the project limits.

11. The cold-water zone is upstream of where the Cross-Valley Pipeline Extension will come into the creek, so the pipeline extension will not supply water to the coolers. So how will imported water and Coyote Creek water flowing through Anderson be delivered to the coolers located directly below the dam?

The chillers will be installed near the existing Coyote Discharge Line, which can release imported water into Coyote Creek about a quarter-mile downstream of the Anderson Dam. Water coming from the upstream sections of Coyote Creek and flowing through Anderson Reservoir will not be chilled; however, when creek water mixes with chilled imported water, the combined water temperature is expected to be suitable for the fish in the Cold Water Management Zone (CWMZ).

The Cross Valley Pipeline Extension, on the other hand, will supply un-chilled imported water to Coyote Creek near Ogier Ponds, downstream of the CWMZ. The purpose of releasing imported water into Coyote Creek is for water supply (through managed groundwater recharge into the aquifer) and environmental flows for fish and wildlife below the CWMZ, which do not require chilled water.

The installation of chillers and Cross Valley Pipeline Extension are two separate projects. Still, they will work in tandem to achieve the desired results: cooler water in the CWMZ and continued flows in Coyote Creek downstream of the CWMZ for water supply and environmental benefits.

12. How do the Anderson Dam Tunnel Project (ADTP), Anderson Dam Seismic Retrofit Project (ADSRP), and the Federal Energy Regulatory Commission (FERC) Order Compliance Projects (FOCP) affect the Coyote Creek Flood Protection Project (CCFPP)?

The Coyote Creek Flood Protection project began with the voter approval of the Clean, Safe Creeks, and Natural Flood Protection Plan in November of 2000, allocating funds to the

development of the Mid-Coyote Creek Project. The Mid-Coyote Creek Project Planning Study was completed in 2011.

Due to funding concerns and uncertainty of the impacts of other upstream projects on Coyote Creek, the Valley Water Board of Directors temporarily paused the Mid-Coyote Creek Project in 2016.

In 2017, a 5 to 10- year storm event combined with flows coming from Anderson Dam, resulting in a flow in Coyote Creek equivalent to a 20-year event. The 2017 event led the Valley Water Board of Directors to modify the original Mid-Coyote Creek project's goals and accelerate its schedule and direct staff to continue with the modified project known as the Coyote Creek Flood Protection Project.

On Feb. 20, 2020, the Federal Energy Regulatory Commission (FERC) directed Valley Water to expedite implementing the Anderson Dam diversion tunnel system, otherwise known as the Anderson Dam Tunnel Project (ADTP). A contractor was selected for this project, and work is scheduled to start this summer, 2021.

To manage the flows that would be generated in Coyote Creek by the ADTP, approximately 40% of the flood risk mitigation measures planned for CCFPP had to be expedited to be in place by December 2023 to coincide with operations of ADTP. These measures are now referred to as the Coyote Creek Flood Management Measures Project (CCFMMP). The CCFMMP measures include all elements of Reach 5 and select elements of Reaches 6 & 7 of the CCFPP. You can find more information on the CCFMMP [here](#).

The remaining 60% of the original CCFPP will be completed in its original schedule and coincide with completing the Anderson Dam Seismic Retrofit Project's diversion tunnel. These measures are still referred to as the CCFPP. The CCFPP includes Reaches 4 and 8 and the remaining elements of Reaches 6 and 7 of the CCFPP. For more information on the extent of the CCFPP please see [here](#).

13. Based on Probable Maximum Precipitation (PMP), what is the predicted maximum flow rate at William Street Bridge after the tunnel is installed but before the new Dam is constructed?

The Probable Maximum Precipitation (PMP) is defined as the maximum depth of precipitation at a location for a given duration that is meteorologically possible (based on National Weather Service guidance). The Probable Maximum Flood (PMF) is similar, but a flood resulting from the PMP. Therefore, there isn't a realistic return period or percentage chance, as it is expected never to occur. These are used as the extreme upper bound when no risk is tolerable.

The flow rate at the William Street Bridge is not known, as the entire area would be underwater. It is expected that the peak outflow at Anderson Reservoir (assuming the facilities are intact) to be near 95,800cfs.

14. What is Valley Water's plan for keeping the creek clean while the work is occurring and after the project is completed?

Valley Water routinely conducts maintenance activities on our properties to remove trash and debris, manage invasive species, and manage vegetation for flow conveyance under regulatory permit requirements. This work will continue during and after the project is completed on lands owned by Valley Water. Maintenance on properties in the creek not owned by Valley Water will continue to be the property owner's responsibility. The project is designed to allow appropriate vegetation to continue to provide habitat in the channel as it currently exists.

15. What measures are being proposed for William Street and Selma Olinder parks? What is being done to integrate these measures into the surrounding neighborhood without them contributing to illegal activity?

Valley Water extensively coordinated with the communities surrounding William Street and Selma Olinder parks during the planning phase of the CCFPP. In addition, an extensive alternatives analysis was completed to select the preferred project alternative that includes community and stakeholder input. The preferred project alternative for the William Street and Selma Olinder Parks was presented to the public on June 13, 2020, and includes the following:

William Street Park:

- 2-4 feet high Berm on West side of the park

Selma Olinder Park:

- Passive Barrier along the east side of the park
- 5-foot-tall floodwall to reduce the risk of flooding to Olinder Elementary School on the Northside of the park

Safety and aesthetics were important factors considered during the alternatives analysis. Where feasible, passive barriers were implemented to the greatest extent possible to minimize, and in most cases, eliminate impacts to the direct view into the park, except during a flood event.

The geography of William Street Park and the potential layout of the flood protection element were reasons why a passive flood barrier was not feasible at this location.

You can view these elements and other additional visual representations on the aesthetics of these potential elements at the [project website](#).



16. Is security one of the selection criteria for the alternatives? The berm along the west side of William Street Park can create a public safety issue since the police will not see into the park from the street.

Safety and security were factors considered during the alternatives analysis. Several factors prohibited passive barriers along the west side of William Street Park, including cost and logistics due to the layout. Additionally, Valley Water considered input from the community, including the Parks advocates, who preferred the vegetated berm.

The berm will be at most 4-feet tall, allowing a direct line of sight into the park from the roadway. Vehicle access can be incorporated into the berm to provide access to the park's interior for City of San José police inspections.

17. Who will be responsible for maintaining the berm in William St. Park after it is constructed?

Similar to other multi-agency projects, Valley Water will develop and implement an Operations & Maintenance Agreement and a Joint Use Agreement with the City of San José to maintain any flood risk reduction elements, including the berm. Elements of the maintenance will be shared.

18. What is the status of the Draft Environmental Impact Report (EIR) for the Anderson Dam Seismic Retrofit Project, and how will that integrate with the Federal Energy Regulatory Commission (FERC) Order Compliance Project (FOCP)?

The Anderson Dam Seismic Retrofit Project (ADSRP) Environmental Impact Report (EIR) will only consider the impacts from the ADSRP. The FERC Order Compliance Project (FOCP) currently has a California Environmental Quality Act (CEQA) statutory exemption, which precludes the need for an EIR for the FOCP and its mitigation measures, including the CCFMMP.

19. Can the staff report for the Board of Directors on June 23, 2020, discuss how far along design is for each of the projects in the FOCP and how the projects might change as design moves forward? The Board should be informed of these uncertainties. I imagine a table that includes columns for each project such as % design complete, factors still to be determined (such as location and operation of chillers); potential for design changes; permits required; etc.

Each Capital component of the FERC Order Compliance Project (FOCP) will have its status updated quarterly (sometimes more frequently) at the Board's Capital Improvement Program (CIP) Committee. As the project moves through the design phase, staff will bring the project to Valley Water's Board of Directors in compliance with Valley Water's current procedures. Some of these check-ins may include public hearings for the adoption of Engineers Reports, Certification of CEQA findings, advertisement and award of construction contracts, and Notice of Acceptance and Completion of construction contracts, as well as other pre-determined intervals.

The public can access all staff reports, charts, and associated tables for the project at: <https://www.valleywater.org/how-we-operate/committees/board-committees>.

20. How were the reaches designated - are they delineated by stream geomorphology and hydrology, or from terrestrial and urban geography?

The reaches were designated by explicitly targeting areas that were similarly affected by the February 2017 flood event. For example, Reach 4 includes the area near Charcot Avenue bridge; Reach 5 addresses the area located by the Golden Wheel, Riverbend, and South Bay mobile home parks and the commercial and industrial areas in the vicinity; Reach 6 targets Watson Park and residential areas close to the park; Reach 7 targets the flooded areas within the Naglee Park and Olinder neighborhoods; and Reach 8 targets the areas near the Rocksprings neighborhood.

21. My apartment in Rock Springs flooded in 2017. Why is this project taking so long?

Emergency protection work in the Rock Springs area was implemented after the February 2017 flood event. In November 2017, an interim 400-foot-long vinyl sheet pile wall and a 500-foot-long soil berm were installed to protect this neighborhood. The Valley Water Board of Directors then approved to expedite the current project to protect Coyote Creek's other sections. This has moved very expeditiously through the planning phase and is currently in the design phase.

The 2017 flood event impacted nine miles of Coyote Creek beyond just the Rock Springs neighborhood. The scope of the problem for the entire stretch of creek and its surrounding areas first needs to be thoroughly analyzed and understood. Also, it takes time to secure the funding for this significant public works project, which is currently estimated at over \$80 million. And Valley Water has strived to engage and coordinate with several stakeholders. Valley Water has held many meetings with the public and other government entities, such as the City of San Jose, environmental regulatory agencies, utilities, as we work together to develop the most optimum solution to the flooding problem. Please see the [project website](#) for all the work that has been done to date to get to the design phase of the project.

22. What are the three critical stages that the Anderson Dam Seismic Retrofit Project (ADSRP) will go through?

(1) Dam dewatering and construction of the Anderson Dam Tunnel Project, which will have an anticipated discharge capacity of approximately 2,500 cubic feet per second (cfs) or approximately five times the current outlet capacity,

(2) Dam reconstruction, where the dam will be deconstructed and rebuilt, current spillway will not be operational, and a larger outlet pipe will be constructed, which will have an anticipated discharge capacity of approximately 6000-7000 cfs or 12-14 times the current discharge capacity, and,

(3) Completion of ADSRP and future development of a new operations plan.

A. What are the flood risks to downstream communities associated with each of the three phases of the Anderson Dam Seismic Retrofit Project, as well as the approximated timelines of each phase?

After stage #1, we expect releases of 2,500cfs from the dam to occur frequently. We also expect the probability of a spillway activation to be very low. This means that flows experienced during 2017 would likely not happen, but normal winter flows would be higher. Areas that flood at a lower flow rate would flood with increased frequency, while areas that flood at a high flow rate would have a minimal flood risk.

During stage #2, we expect significantly higher flows to occur. A 2017 event would be more likely to happen, and flood risks would increase for all areas downstream.

After stage #3, the flood risks would depend significantly on the agreed-upon operations plan. It is unknown at this time.

B. What are the needed flood risk reduction measures at each phase of the ADSRP, and why are they needed at each phase of the project?

For stage #1, the reduction measures would need to protect the areas that flood at a lower flow rate more frequently. For stage #2, the reduction measures would need to protect all areas flooded during a 2017 flood event. The operations of the dam after stage #1 and during stage #2 will be required to prioritize dam safety in such a way that gives little room to hold back water for flow reduction. Once stage #3 is completed, the flood reduction measures would not explicitly be required, as we could operate to match current risks. Still, it would give an extra level of safety and flexibility for dam operation.

C. Does the flood protection alternative for each reach need to be consistent throughout the reach, or can the solutions vary by property?

Each reach has multiple solutions based on a variety of factors, including site-specific characteristics. In the areas where a floodwall, levee, or passive barrier is proposed, the solution will need to be consistent across all impacted properties for the solution to be effective. The residences that are slated to be acquired or elevated can vary based on the property.

D. How does a varied approach by a property affect the safety of the entire neighborhood?

Each proposed flood protection solution will protect the individual property and not negatively impact the surrounding community or cause flooding elsewhere. For the residential properties, whether a property is acquired or elevated, both flood protection measures will have the same safety result for the surrounding neighborhood. In both instances, the water will be able to flow freely within the floodplain. All proposed solutions need to work together to provide the best overall protection for the entire community.

E. Are a variety of flood risk reduction measures needed at each phase of the Anderson Dam project?

Stage #1 needs a higher level of protection than current conditions in Coyote Creek, while Stage #2 needs a higher protection level than Stage #1. Although it is possible to stagger the measures, this might be inefficient. The Anderson Dam Tunnel Project

(ADTP), the Anderson Dam Seismic Retrofit Project (ADSRP), and the Anderson Dam Post Project operations will require different risk management levels. However, impacted properties will not require multiple measures. The Coyote Creek Flood Management Measures (CCFMM) will need to be constructed earlier, by December 2023, before the operation of the ADTP. The CCFMMP and CCFPP will remain in place to protect against future flows equivalent to the 2017 flood event, or a 20-year flood, from the ADSRP and post-ADSRP operations.

The Coyote Creek Flood Protection Project (CCFPP) will be implemented as quickly as possible to protect against ADSRP and post-ADSRP operational flows.

23. Who owns the Creek and is responsible for maintaining it?

The mid-reach is owned by a combination of the City of San José and private landowners, and the upper reach between Tully Road and Anderson Dam is owned mostly by the County of Santa Clara and some private landowners. Property owners whose land extends into the creek have the primary role in maintaining the creek sections on their property. Valley Water only owns a fraction of Coyote Creek, most of which is north of Interstate-880.

24. During the February 2017 flood event, some urban flooding was caused by storm drains not having properly working flap gates to prevent the backflow effect. Will this project address this problem?

No, storm drains, outfalls, and flap gates are components of the municipal storm drainage system. Most of these features in the urban area are owned by the City of San Jose. Other storm drains may be privately owned or under other agencies' jurisdiction.