

AGENDA

COYOTE CREEK FLOOD RISK REDUCTION AD HOC COMMITTEE MEETING

THURSDAY, OCTOBER 5, 2017

6:00 P.M.

ROOSEVELT COMMUNITY CENTER
MULTI-PURPOSE ROOM
901 E. SANTA CLARA STREET
SAN JOSE, CA 95116

Time Certain 6:00 p.m.	1.	<u>Call to Order/Roll Call</u>
	2.	<u>Time Open for Public Comment on Any Item Not on the Agenda</u> <i>Comments should be limited to two minutes. If the Committee wishes to discuss a subject raised by the speaker, it can request placement on a future agenda.</i>
	3.	<u>Approval of Minutes</u> Approval of Minutes – August 31, 2017, meeting
	4.	<u>Action/Discussion Items</u> 4.1 Short-term Flood Risk Reduction for Coyote Creek – Reservoir Operations (Afshin Rouhani) Recommendation: Receive information and provide direction to staff. 4.2 Update on Joint City of San Jose and Santa Clara Valley Water District Emergency Action Plan for Severe Storms and Flood Response (Afshin Rouhani) Recommendation: Receive information on the Emergency Action Plan (EAP) being jointly developed by the City of San Jose (City) and Santa Clara Valley Water District (District) and preparations for related Coyote Creek Community Resource Fairs, and provide feedback as needed. 4.3 Review of Coyote Creek Flood Risk Reduction Ad Hoc Committee Work Plan, any Outcomes of Board Action or Committee Requests and the Committee's next meeting agenda (Committee Chair) Recommendation: Review the Committee work plan to guide the Committee's discussions regarding policy alternatives and implications for Board deliberation.
	5.	<u>Clerk Review and Clarification of Committee Requests and Recommendations</u> <i>This is an opportunity for the Clerk to review and obtain clarification on any formally moved, seconded, and approved requests and recommendations made by the Committee during discussion of item 4</i>
	6.	<u>Adjourn</u>

REASONABLE EFFORTS TO ACCOMMODATE PERSONS WITH DISABILITIES WISHING TO ATTEND COMMITTEE MEETINGS WILL BE MADE. PLEASE ADVISE THE CLERK OF THE BOARD OFFICE OF ANY SPECIAL NEEDS BY CALLING (408) 630-2277.

Meetings of this committee will be conducted in compliance with all Brown Act requirements. All public records relating to an open session item on this agenda, which are not exempt from disclosure pursuant to the California Public Records Act, that are distributed to a majority of the legislative body will be available for public inspection at the same time that the public records are distributed or made available to the legislative body, at the following location:

Santa Clara Valley Water District, Office of the Clerk of the Board
5700 Almaden Expressway, San Jose, CA 95118

COYOTE CREEK FLOOD RISK REDUCTION AD HOC COMMITTEE Purpose: Develop short-term/immediate solutions associated with the Coyote Creek flood event and project.



Committee:	Coyote Creek Flood Risk Reduction
Meeting Date:	10/05/17
Agenda Item No.:	4.1
Unclassified Manager:	Afshin Rouhani
Email:	arouhani@valleywater.org
Est. Staff Time:	15 minutes

COMMITTEE AGENDA MEMO

SUBJECT: Short-term Flood Risk Reduction for Coyote Creek – Reservoir Operations

RECOMMENDED ACTION:

Receive information and provide direction to staff.

SUMMARY:

This item is a continuation of the discussion at the August 31 Coyote Creek Ad Hoc Committee meeting. It provides additional information on Anderson Dam operation as a short-term flood risk reduction option for Coyote Creek, and for Committee discussion and direction to staff. These options are being considered for the remaining years until the Anderson Dam retrofit project is in construction phase.

The pump-over option would use a pumping system to increase the District's ability to release incoming flows to Anderson Reservoir over the spillway, and thereby retain more storage volume for potential extreme events. The alternative to pump-over would be to operate the reservoir at a reduced storage level. The reduced reservoir storage option would generally lower the operation rule curve and increase the available flood storage volume behind the dam during the winter season. Both options would reduce the risk of flooding for the downstream communities. However, the pump-over option has significant risks, costs, and will trigger a lengthy environmental review and permitting effort, and is unlikely to be implementable for at least the next four to five winters. The reduced reservoir storage option also has significant risks and costs, including a potential significant loss in water supply reliability. However, it is implementable for this coming winter and the next few years. Given current water supply conditions, it is recommended that staff be directed to operate the Anderson Reservoir system to reduce the risk of flooding along Coyote Creek while providing adequate water supply and balancing other beneficial uses.

BACKGROUND:

The August 31, 2017, Ad Hoc Committee agenda memo (Attachment 1), describes the Coyote Creek system, including Anderson and Coyote Reservoirs. The current operation methodology, including the restrictions due to dam seismic concerns and the water supply, operational, habitat, and recreational benefits provided by the District's largest reservoir system were described. In addition, information was provided on the Coyote Creek flood hydrology, including the existing beneficial impacts of the reservoirs on downstream flood risk reduction. The following are the basic reservoir operation options available to reduce the risk of flooding downstream:

1. Installing pumps in the reservoir to increase releases of stored water and provide more storage volume for future runoff; or
2. Lowering the reservoir storage level significantly below the current seismic restriction before the winter season, and maintaining the lower level to provide more storage volume (with no pumps) through the winter season.

To determine the effectiveness of these two options, the flood peak reduction effect of each option was compared with the current operation plan for three scenarios: a dry year (1977 water year), an average year (1981 water year), and the 2017 water year. Preliminary costs and operational/water supply impacts were described for each concept (see Attachment 1 for details).

New Analysis

Based on input received at the August 31 meeting, staff conducted further research and analysis of the reservoir operation flood risk reduction options. Two areas of analysis were (1) more detailed analysis of the pump-over option's CEQA and permitting issues to determine whether it could be implemented in a timely manner and (2) further research and analysis of operation rule curve options to optimize flood risk reduction versus water supply reliability impact.

1) CEQA/Permitting Analysis of Pump-Over Option

Based on discussion with experienced District environmental staff, environmental review and permitting for the pump-over option would reasonably take four to five years. The system would first have to be designed with adequate detail to permit environmental review, which would require a consultant contract as that expertise does not reside at the District. Environmental review and preparation of the appropriate CEQA document would likely take one to two years to complete. Again, a consultant would likely prepare the document due to staff constraints. Individual project permits would be required; and, based on recent similar project experience, permitting with the regulatory agencies can be reasonably expected to take at two to three years to complete.

2) Additional Analysis of Reduced Storage Alternatives

These options increase the storage volume available in the reservoir during the winter season by adhering to a lower reservoir operation rule curve. The reservoir would be lowered to a reduced storage at the start of the season, and would be managed at a lower curve until later in the season in order to leave additional room for potential extreme rain events. Typically, these rule curves are implemented and identified based on the probability of the storage level exceeding the target at the end of the season. For example, the 40% probability rule curve is an operation curve where there would be a 40% chance that the storage would exceed the target; and a 60% chance that the storage in the reservoir would be below the target at the end of the season.

A series of operation rule curves were considered ranging from 33% up to 50%. The lower the curve, the lower the storage in the reservoir and the smaller the probability that the reservoir would go over the seismic restriction level or fill. To evaluate the effect of each of these operational scenarios, considerations should also include its potential impact to water supply, water reliability, and, other beneficial uses such as environmental releases, recreation, and any other items within the operational constraints of the system.

Staff analyzed each rule curve for its efficacy in reducing reservoir spill events and for potential water supply impacts. Attachment 2 shows how the various rule curves would have reduced the spill events at Anderson Dam for the three highest spill event years since the dam was built (1982-83; 1997-98; and 2016-17). A summary of the results is shown below:

Year End Target Exceedance Probability	Max Spillway Flow in cfs (Appx)		
	2016 - 2017	1982-1983	1996-1997
33%	0	2,500	0
38%	900	2,700	0
40%	1,300	3,000	0
45%	4,300	4,400	0
50%	5,700	4,600	0

Note that the effectiveness of the reduced storage option depends in part on the type of rainfall year experienced. Intense but infrequent rain years like 1997-98 are controlled much better than continuous rainfall years like 1982-83.

In terms of the water supply impact, the average annual water supply impact of operating at the revised rule curves was preliminarily estimated as follows:

Exceedance Probability	Est. Average Annual Water Supply Impact (AF)
33%	10,900
38%	8,000
40%	6,700
45%	4,200
50%	3,600

The water supply impact represents the amount of water that would be released from the reservoir and not captured in order to stay at the specified rule curve. In addition to looking at the water supply impact, it is also critical to look at water supply reliability. Reliability can be viewed as having the water available when it is needed. In the event that the District's Central Valley Project (CVP) water cannot be brought in from San Luis Reservoir, either due to facility outages or water quality issues that make the water untreatable (San Luis Low Point). Anderson Reservoir is the primary backup supply to provide water to the treatment plants, recharge facilities, surface water users, and streams. When reservoir levels are low, that reliability is reduced. Low reservoir levels can also reduce the cold water pool available for fisheries releases in the summer and impact recreational use of the reservoir.

Following several years of drought, the 2017 winter season helped restore groundwater levels to near pre-drought conditions. In addition, imported water allocations provided ample supplies to allow water to be banked in Semitropic, and still allow some supplies to be carried over into 2018. Given our current water supply projections, staff believes that storage levels in Anderson can be lowered to reduce the likelihood of exceeding the reservoir seismic storage restriction levels, which also reduces the flood risk potential.

However, in a dry year, the low storage levels in the reservoir could continue to drop due to a lack of winter inflow. In this case, environmental releases and recreation would likely be impacted. Once the threat of major storms has passed, typically in March, it may be possible to pump imported water into Anderson Dam to increase the cold water pool depending on water supplies and water temperatures.

Conclusions

The analyses conducted to date on various reservoir operation options are summarized as follow:

- Based on modeling performed to date, a pump-over system could significantly reduce the occurrence and magnitude of spillway discharges in very wet years. If approved, a pump-over system would cost between \$4 million and \$5 million every year. It is very likely to take four to five years to conduct the design and environmental clearance and obtain the necessary permits to install and operate such a system.
- Operating Anderson Reservoir at reduced storage levels via the existing outlet pipe would significantly reduce the probability and magnitude of spillway discharges in very wet years. However, water supply reliability may be compromised in years of average or low rainfall.
- Therefore, it is recommended that staff be directed to operate the Anderson Reservoir system to reduce the risk of flooding along Coyote Creek while providing adequate water supply and balancing other beneficial uses.

ATTACHMENT(S):

Attachment 1 – August 31, 2017, Coyote Creek Ad Hoc Committee Meeting Agenda Materials
Attachment 2 – PowerPoint Presentation

Short-term Flood Risk Reduction for Coyote Creek Reservoir Operations

Coyote Creek Flood Risk Reduction
Ad Hoc Committee
October 5, 2017



Watershed Map



Anderson Reservoir

Dam built in 1950

90,353 Acre-Feet storage

Key water supply element

Ties into raw water system

Emergency water source

Fisheries and recreation

Incidental flood protection benefits



Aug 31 Flood Risk Reduction Summary

For a “wet” year such as 2016-17:

- Previous operation resulted in peak spill of approximately 7,000 cfs.
- Adding pump-over as proposed could eliminate spill under same conditions.
- Operating at reduced storage could also eliminate spill under same conditions.

For average winters and dry years, there would be no spill under any of the scenarios studied.

Aug 31 Water Supply Impacts Summary

For a “wet” year such as 2016-17, there would be no water supply impact under any scenario studied.

For an “average” year, the scenarios studied indicate minor to significant water supply reliability impacts.

For a “dry” year, the reduced storage scenario would have water supply reliability impacts.

New Analysis

- Pump-over scenario: environmental clearance and permitting investigation.
- Reduced storage scenario: more detailed investigation of options.

Pump-over CEQA and Permitting

Project would need to be fully designed first.

1 to 2-Year CEQA timeline *after* project is fully designed.

- Based on similar impact District projects

2 to 3-Year permitting timeline.

- Based on similar project timelines
- Assumes DSOD and FERC permits at same time as environmental permits

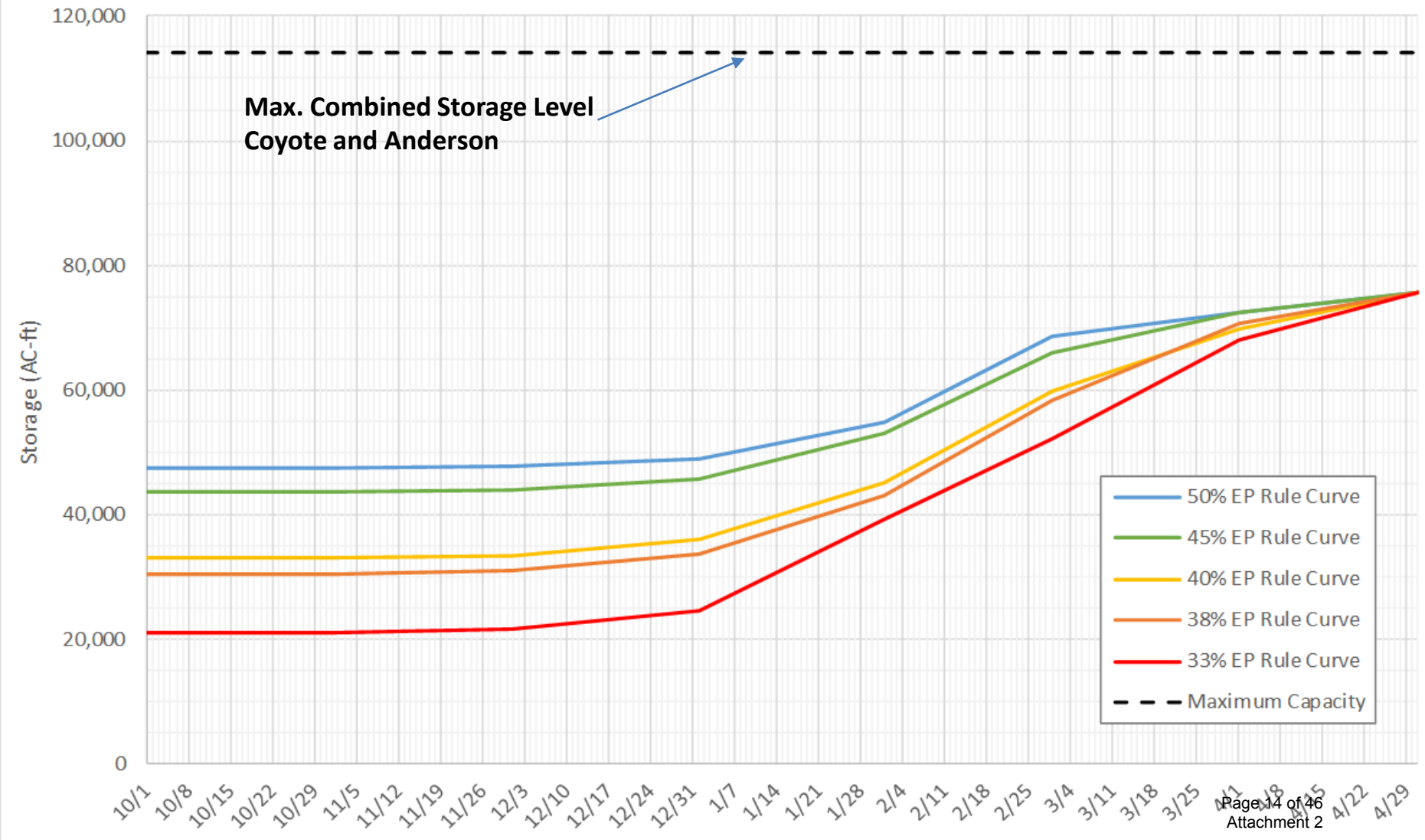
Would need to negotiate and lease pump system for implementation.

Emergency permitting would not apply.

No pumping until 2021-22.

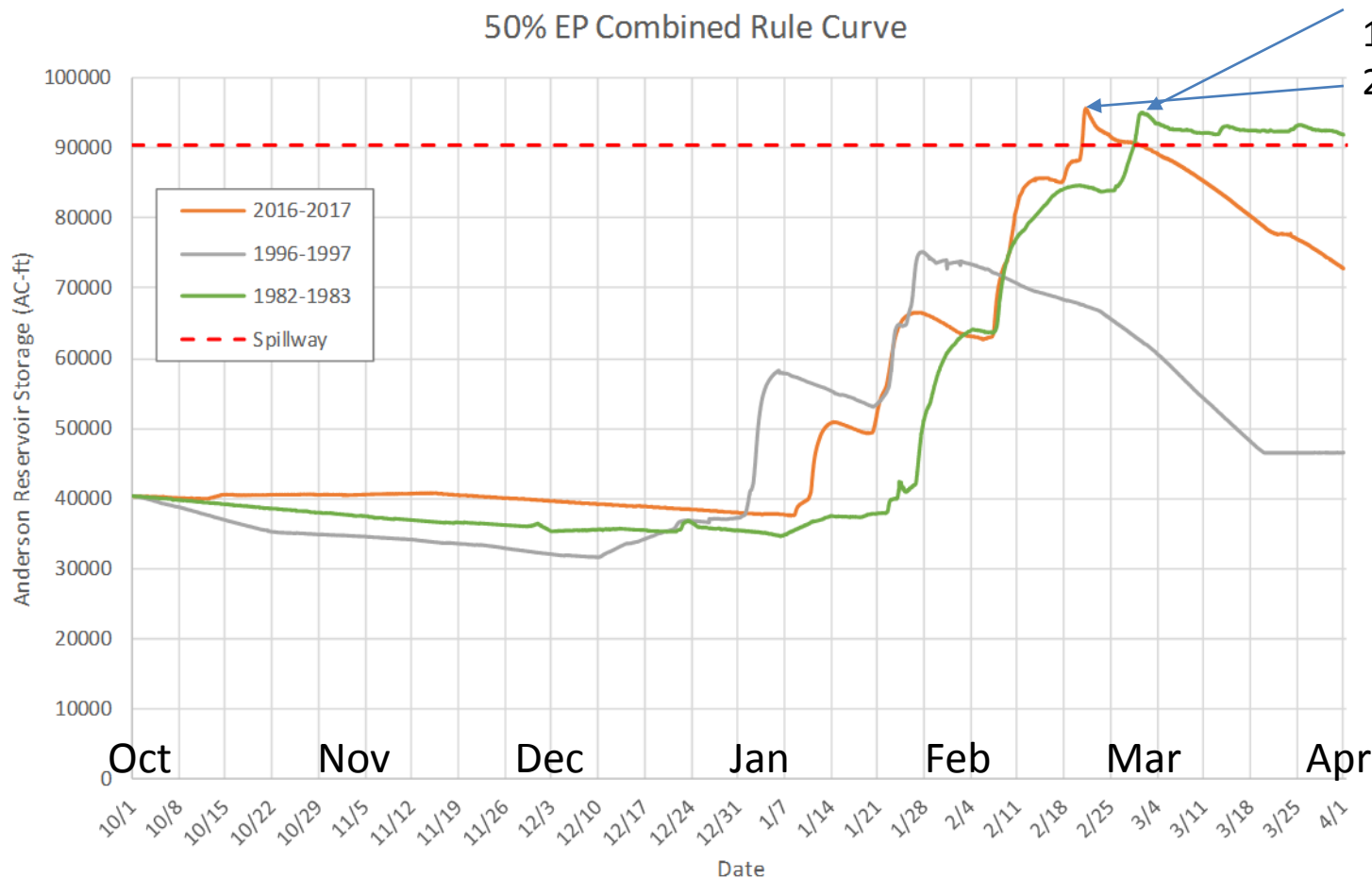
Reduced Storage Scenarios

Anderson & Coyote Combined Storage Rule Curves



Reduced Storage Alternatives – 50%

Max. Spill:
1982: 4,800 cfs
1997: 0
2017: 5,900 cfs



Reduced Storage Alternatives – 45%

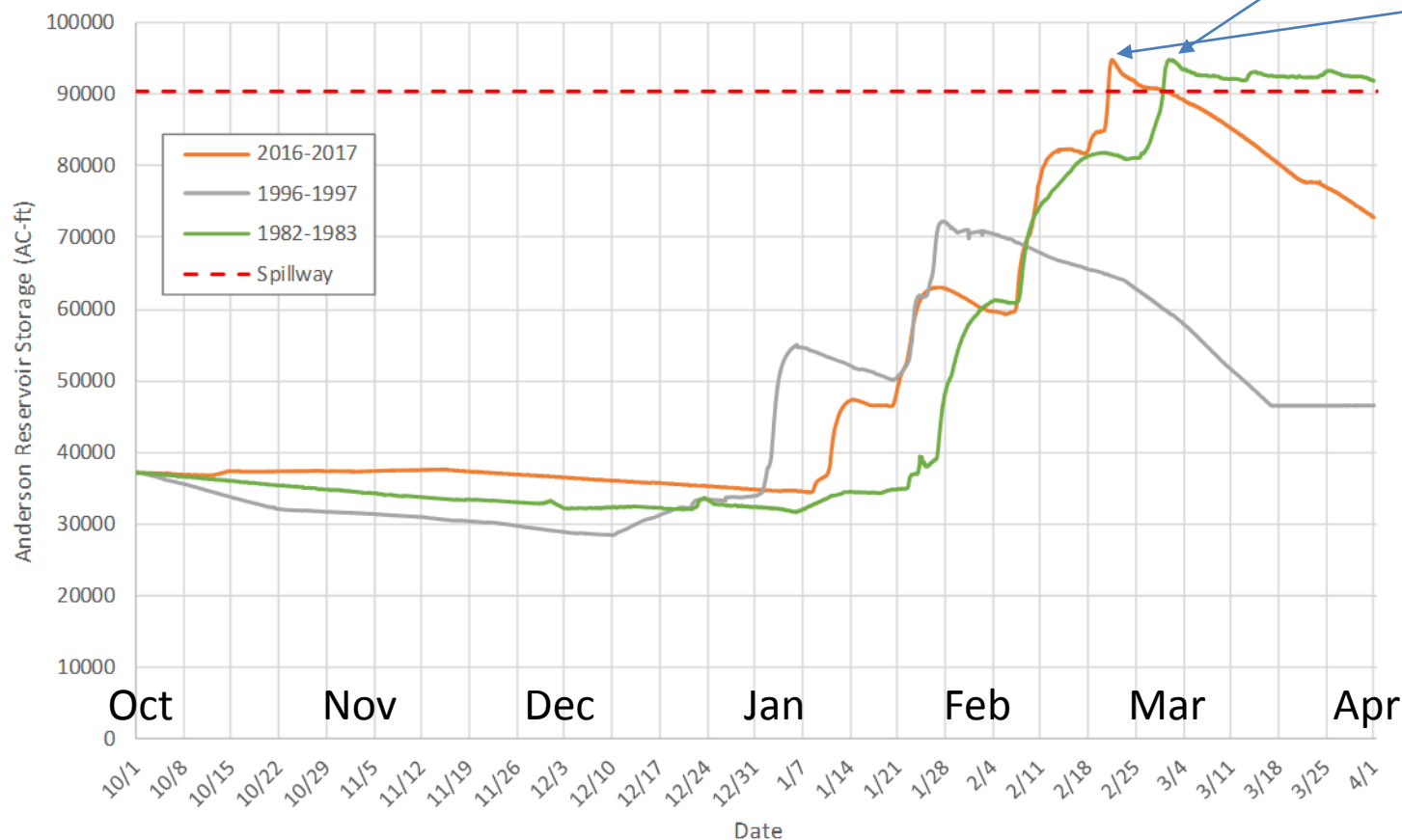
Max. Spill:

1982: 4,700 cfs

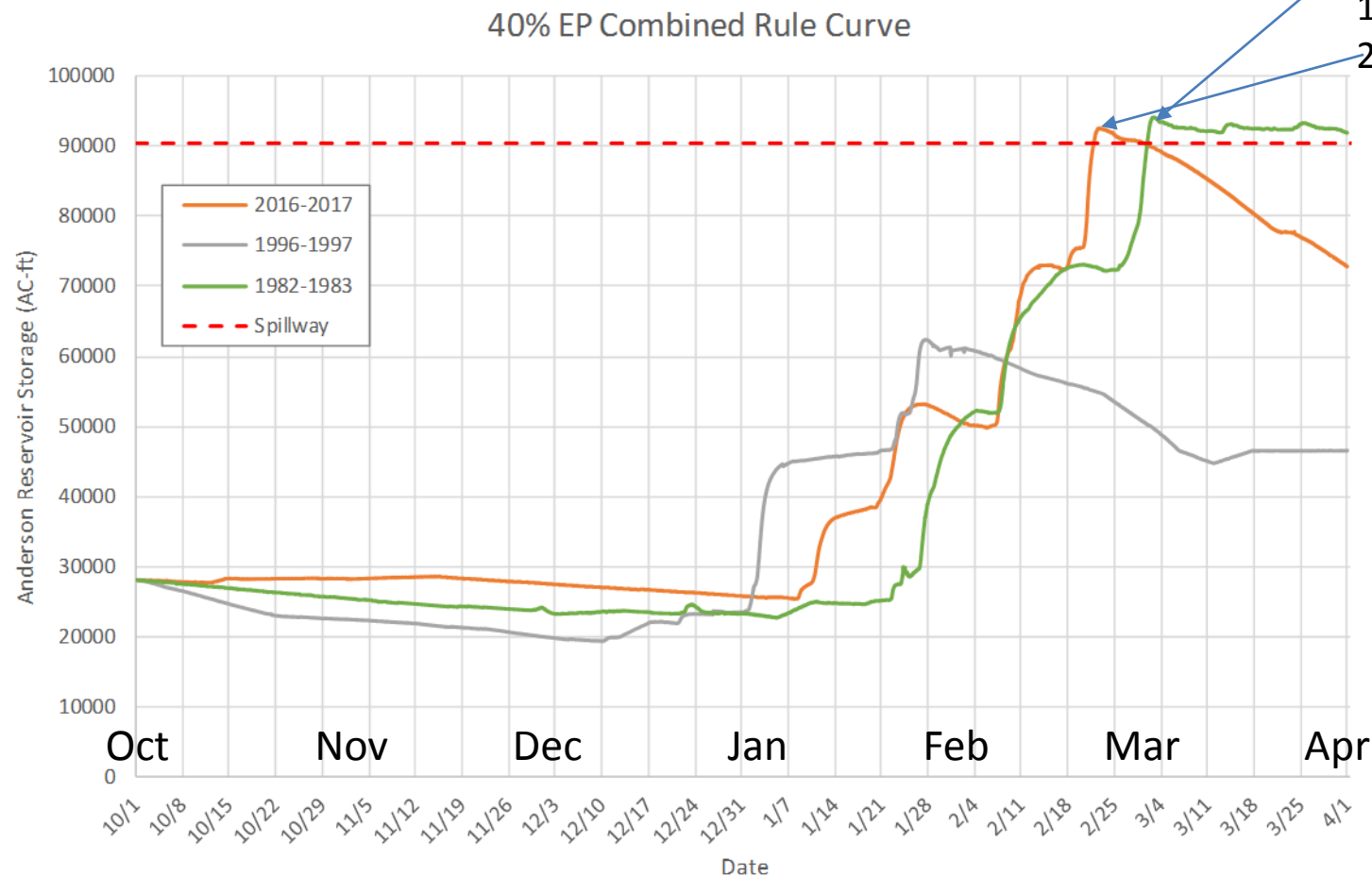
1997: 0

2017: 4,500 cfs

45% EP Combined Rule Curve



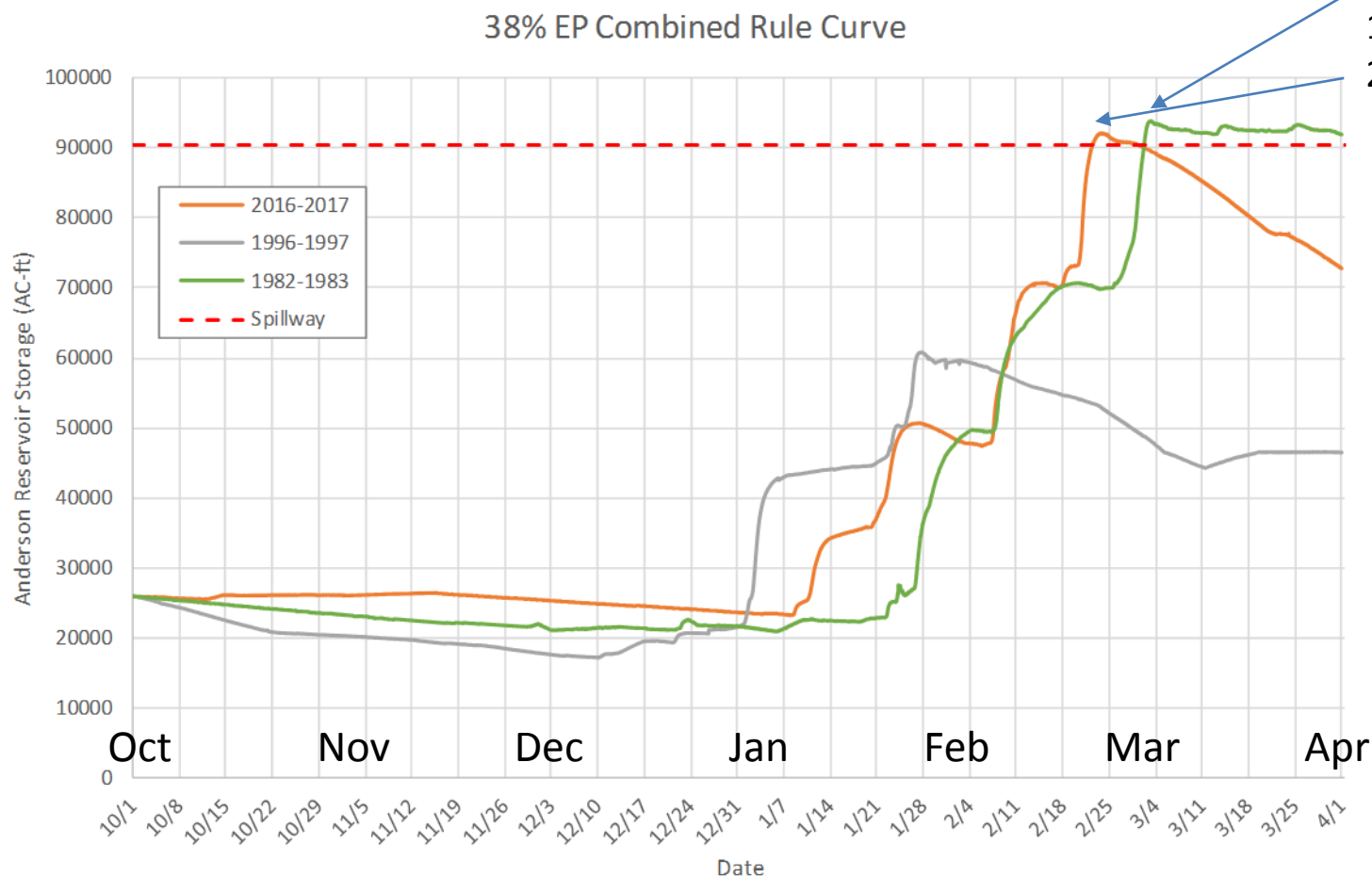
Reduced Storage Alternatives – 40%



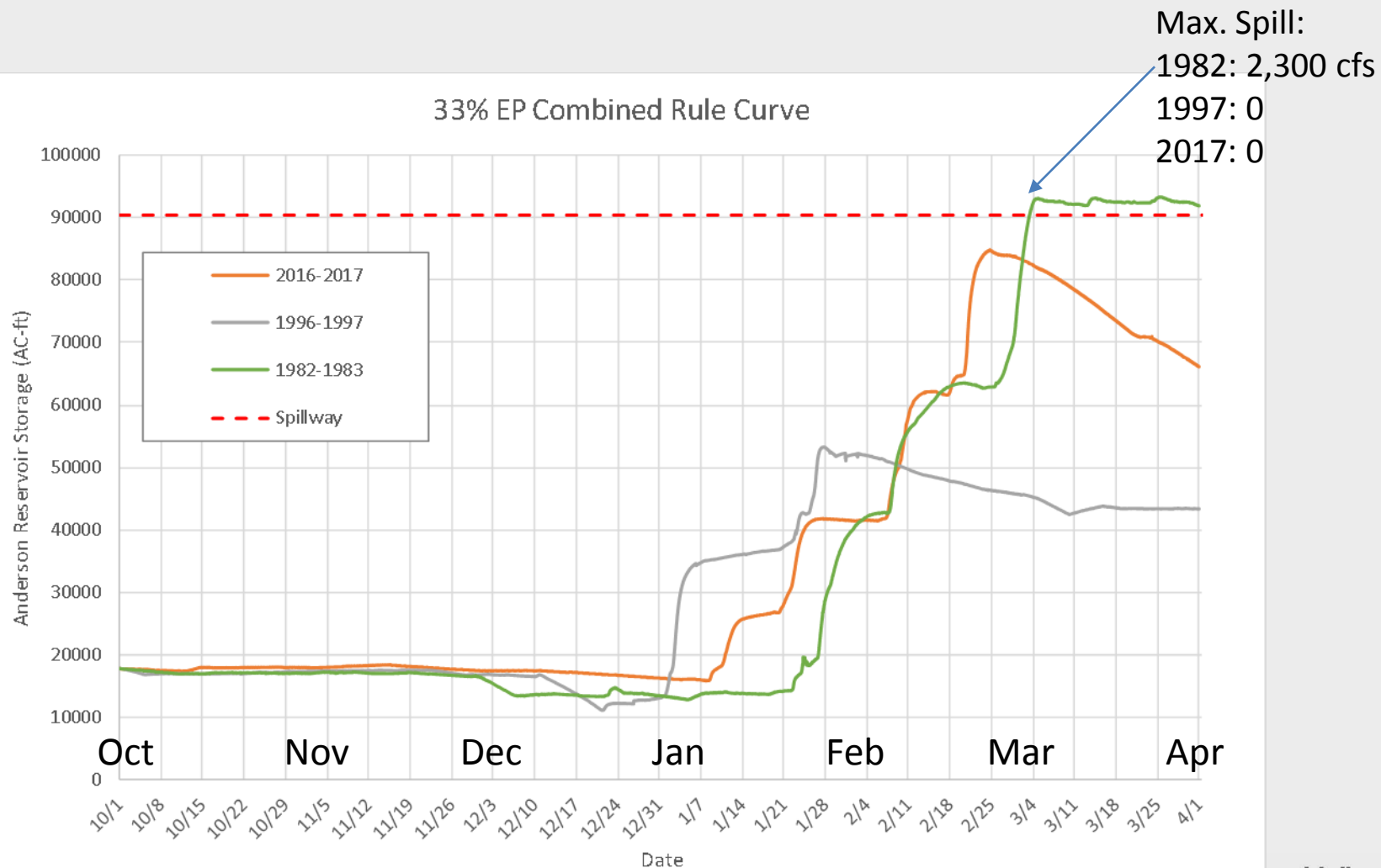
Max. Spill:
1982: 3,300 cfs
1997: 0
2017: 1,400 cfs

Reduced Storage Alternatives – 38%

Max. Spill:
1982: 3,000 cfs
1997: 0
2017: 1,000 cfs



Reduced Storage Alternatives – 33%



Summary Operation Options Spill Impacts

Proposed Rule Curves Year End Target Exceedance Probability	Max Spillway Flow in cfs (Appx)		
	2016 - 2017	1982-1983	1996-1997
33%	0	2,300	0
38%	1,000	3,000	0
40%	1,400	3,300	0
45%	4,500	4,700	0
50%	5,900	4,800	0

- Minor flooding starts at flows as low as 1000-2000 cfs.
- Widespread flooding of residential areas starts at 5000 - 6000 cfs, depending on creek conditions.

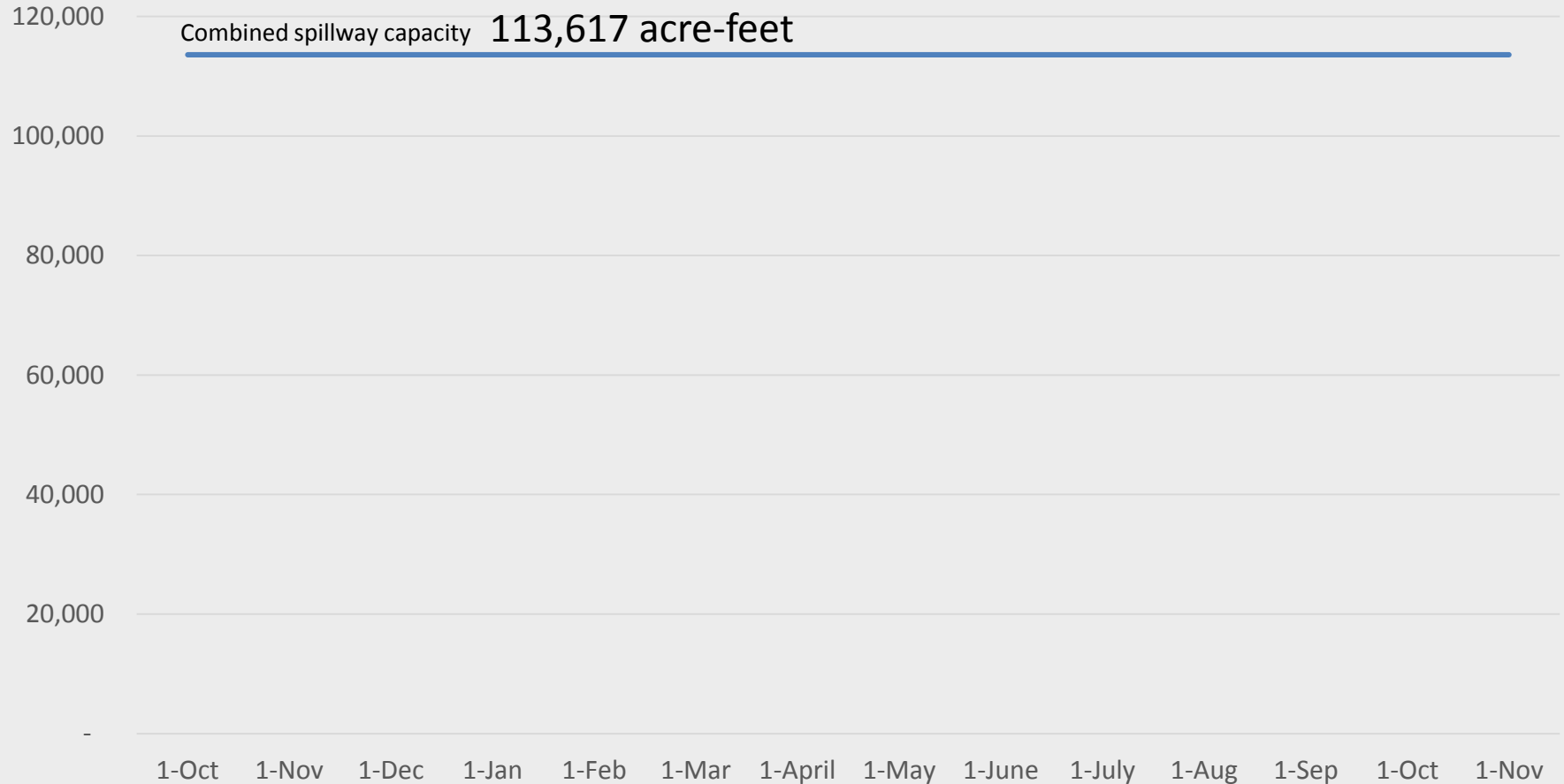
Other Operational Factors

The operation of the Anderson system is a balance of many factors:

- Flood risk reduction
- Water supply
- Supply reliability
- Environmental releases
- Recreation
- Operational constraints

Proposed Reservoir Operations

Combined Anderson & Coyote Storage

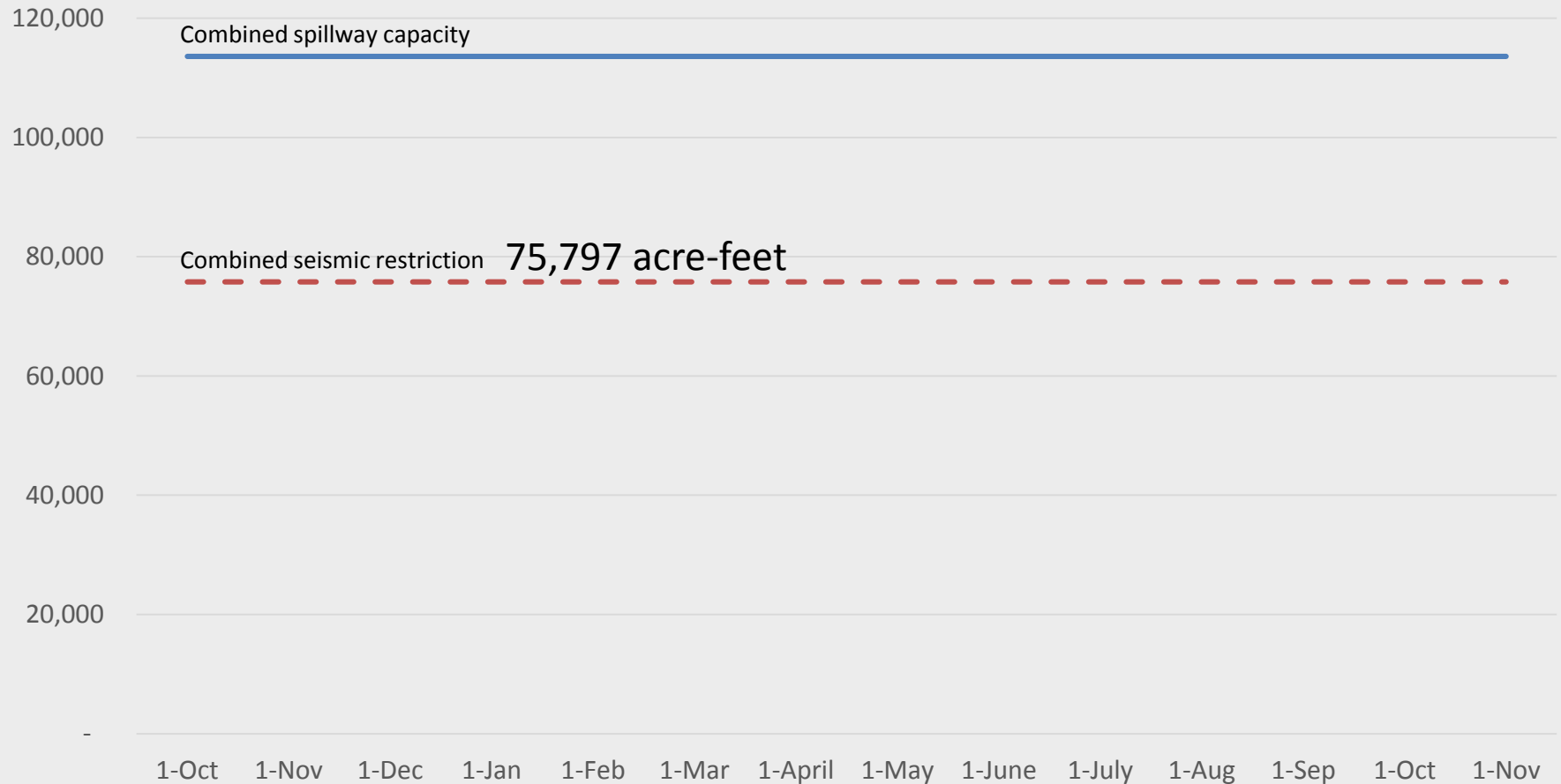


— Spillway



Proposed Reservoir Operations

Combined Anderson & Coyote Storage

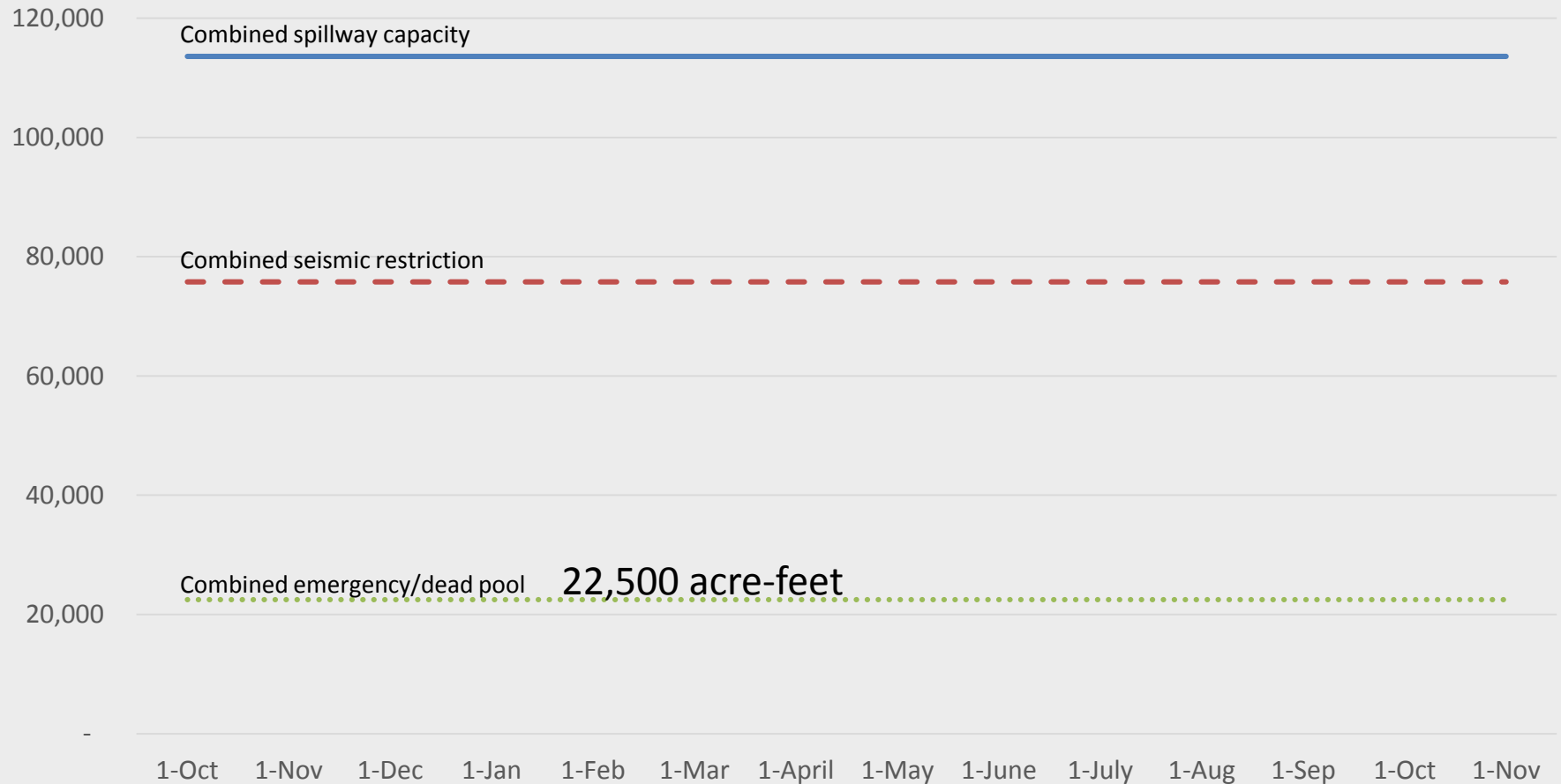


— Spillway - - Seismic Restriction



Proposed Reservoir Operations

Combined Anderson & Coyote Storage

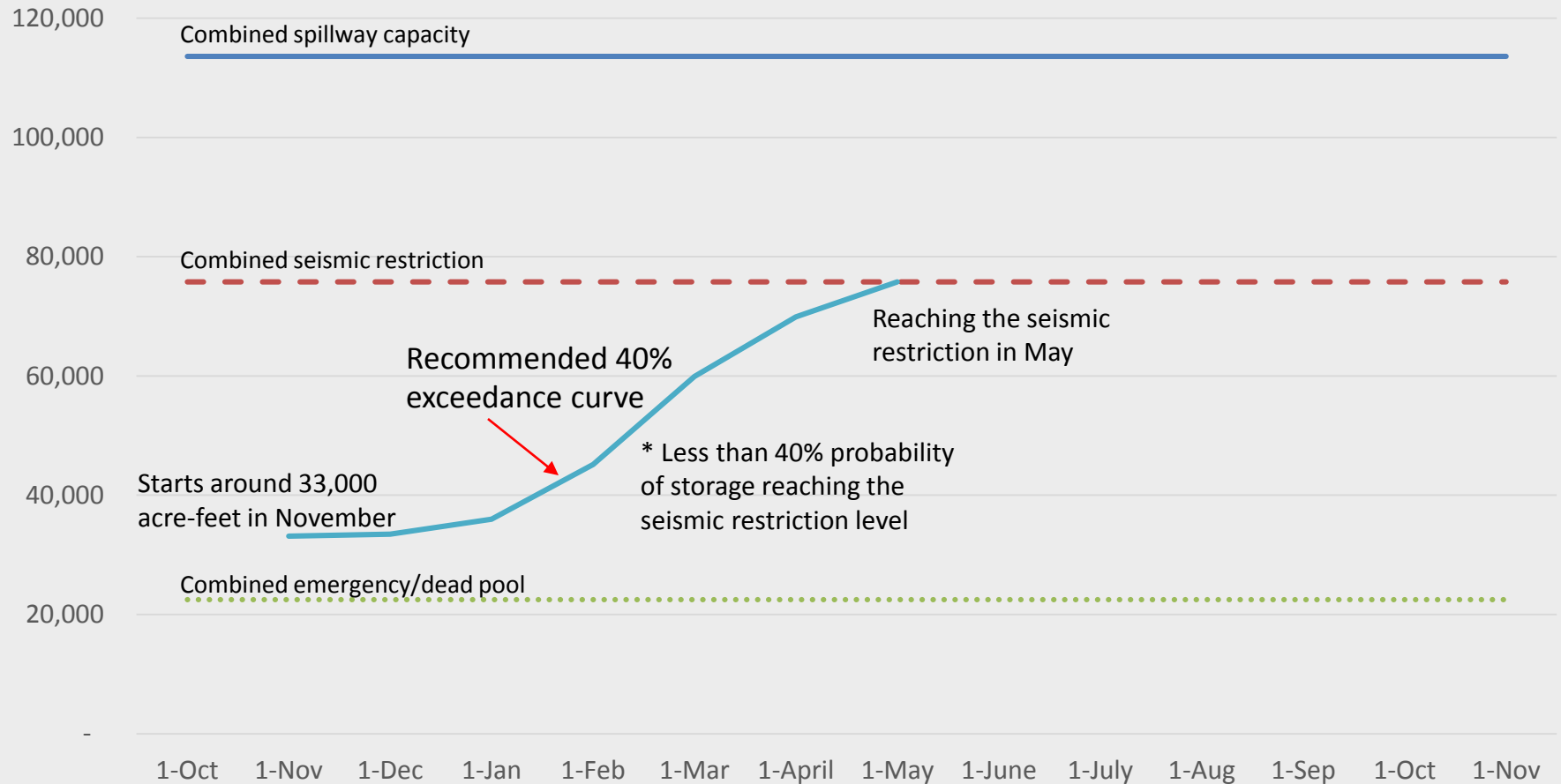


— Spillway - - Seismic Restriction Emergency



Proposed Reservoir Operations

Combined Anderson & Coyote Storage

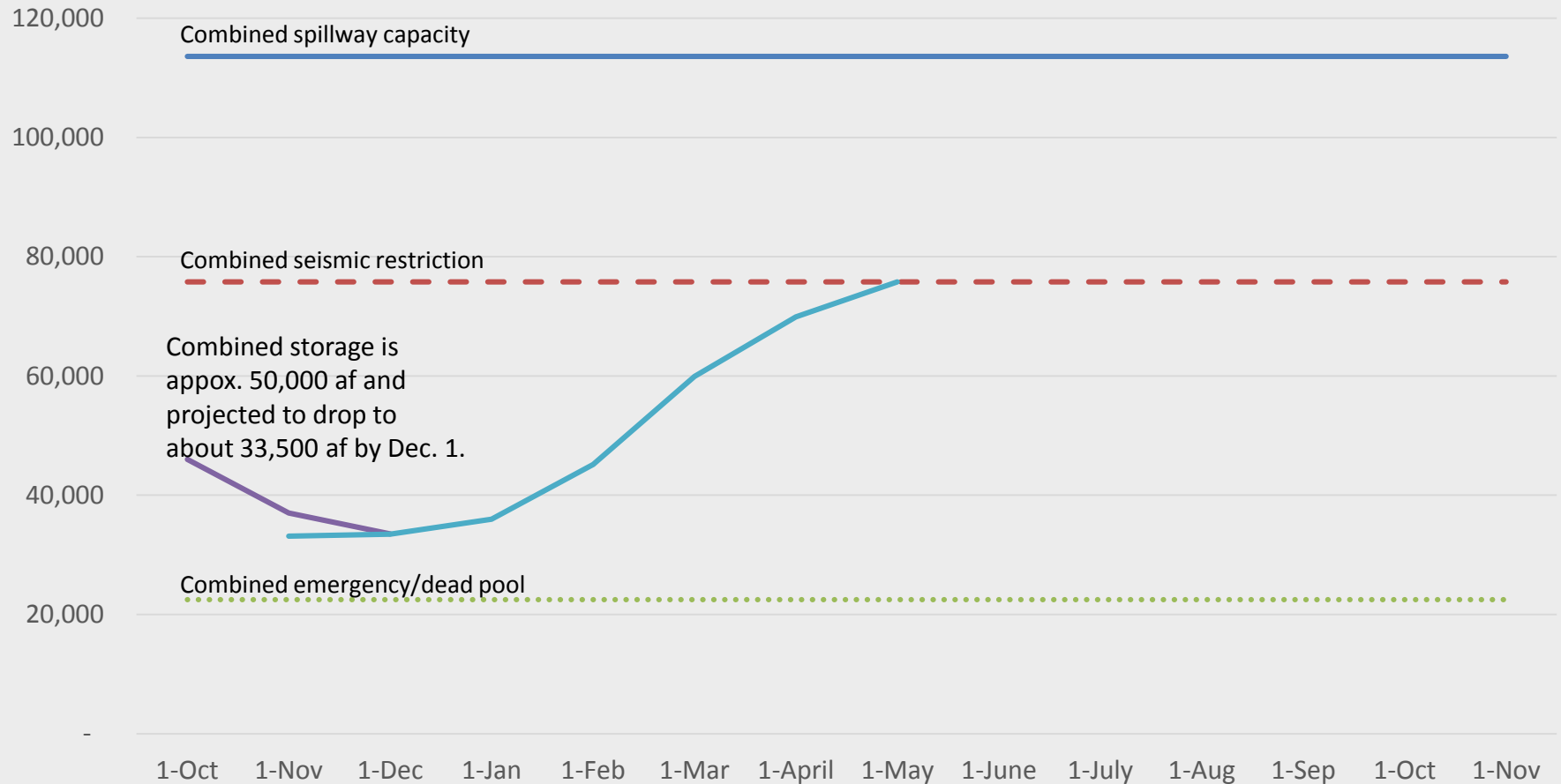


— Spillway - - Seismic Restriction Emergency — 40% Rule Curve



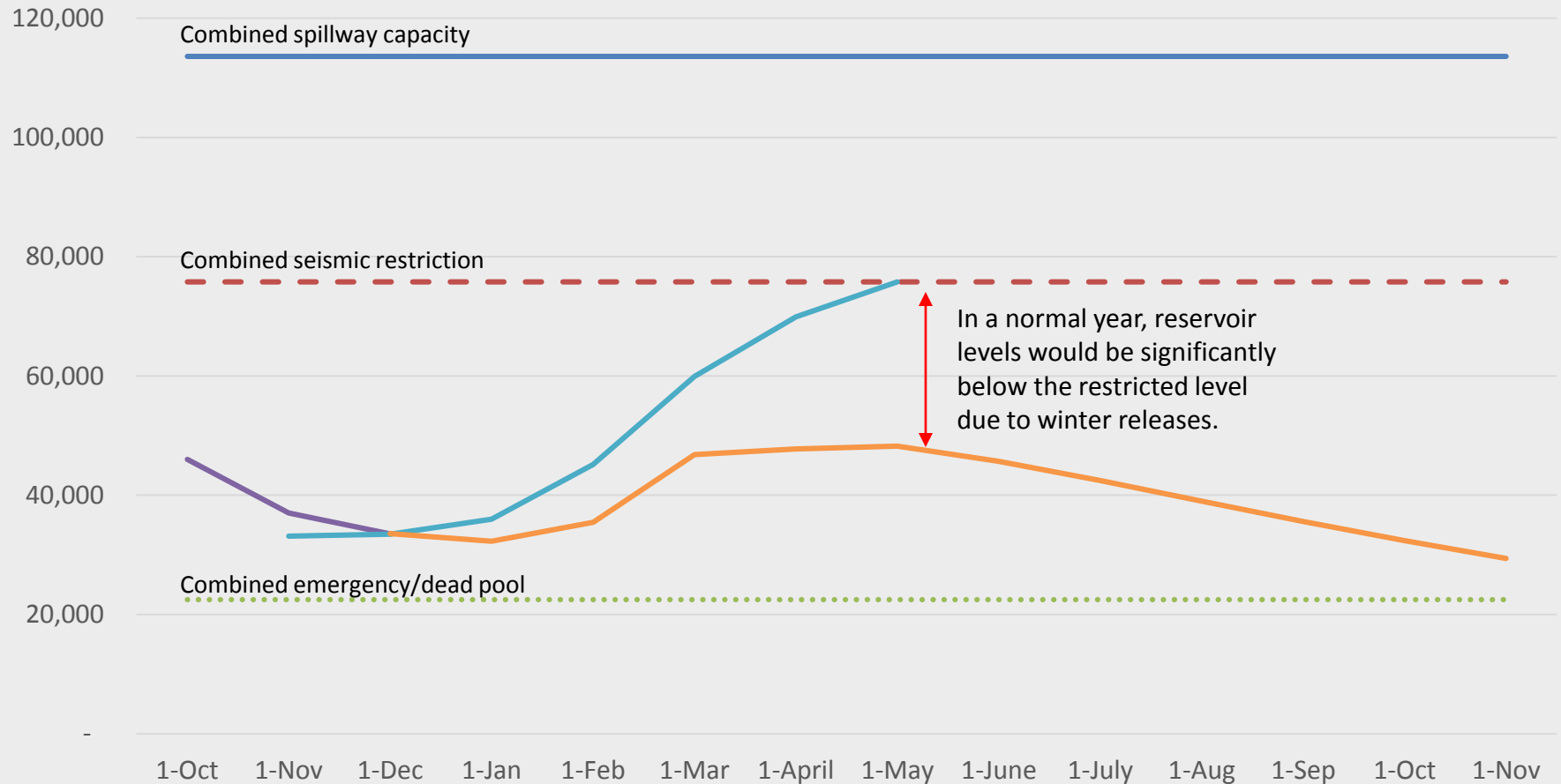
Proposed Reservoir Operations

Combined Anderson & Coyote Storage



Proposed Reservoir Operations

Combined Anderson & Coyote Storage

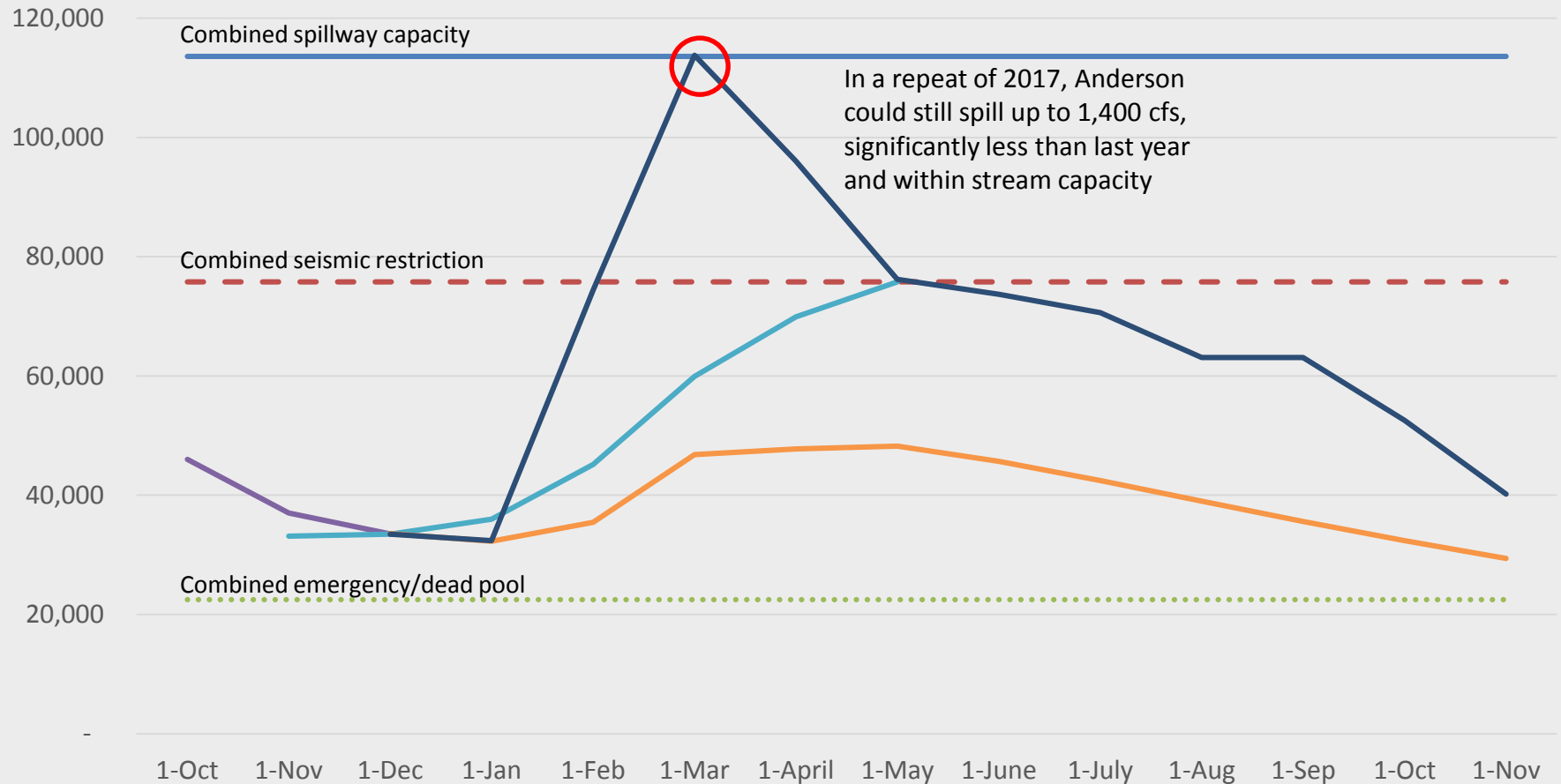


In a normal year, reservoir levels would be significantly below the restricted level due to winter releases.



Proposed Reservoir Operations

Combined Anderson & Coyote Storage

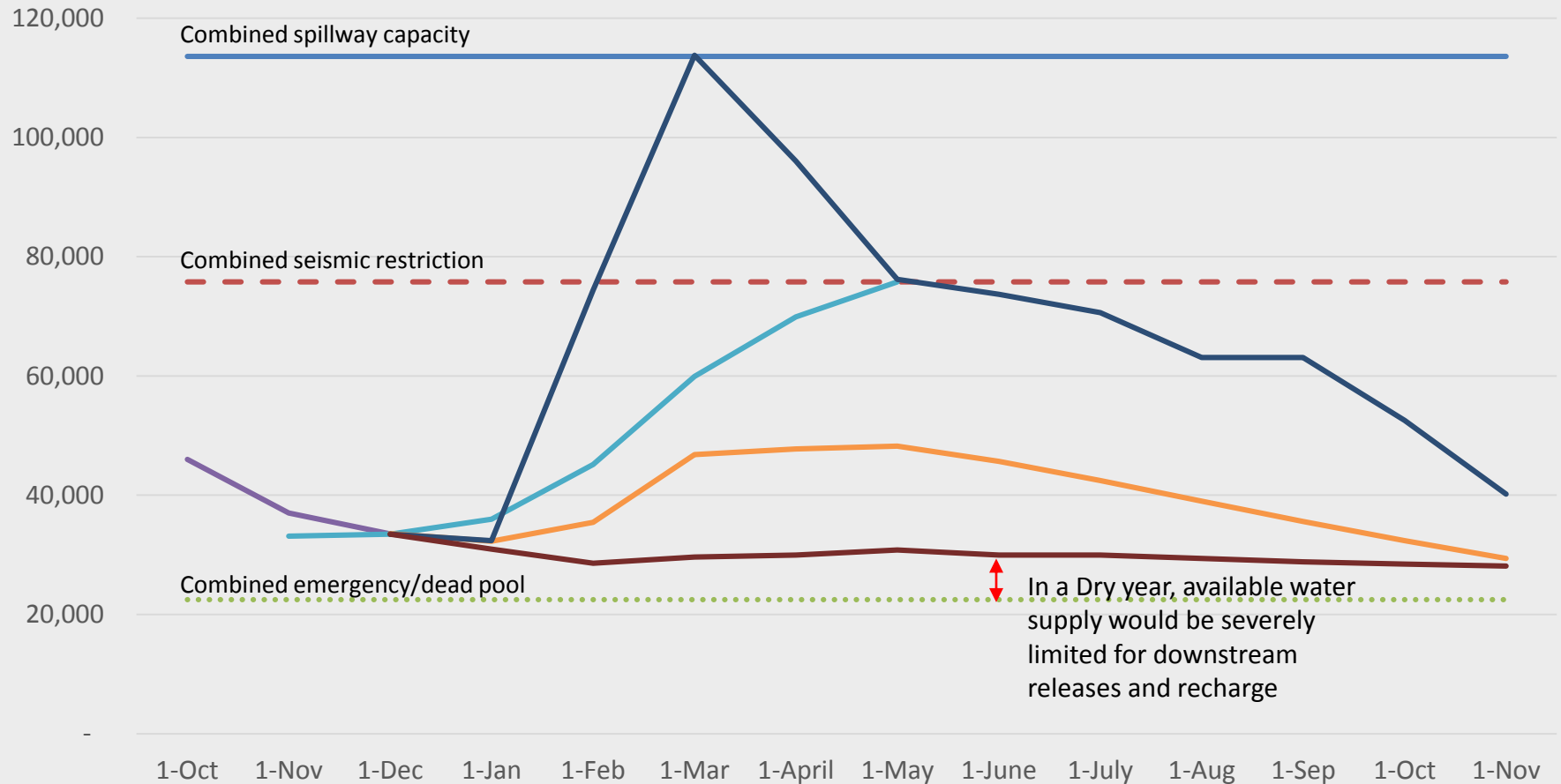


In a repeat of 2017, Anderson could still spill up to 1,400 cfs, significantly less than last year and within stream capacity

— Spillway — Seismic Restriction Emergency — Planned Ops
— 40% Rule Curve — Average — 2017

Proposed Reservoir Operations

Combined Anderson & Coyote Storage



Spillway

Seismic Restriction

Emergency

Planned Ops

40% Rule Curve

Average

2017

Dry

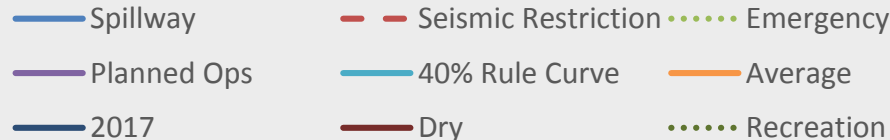
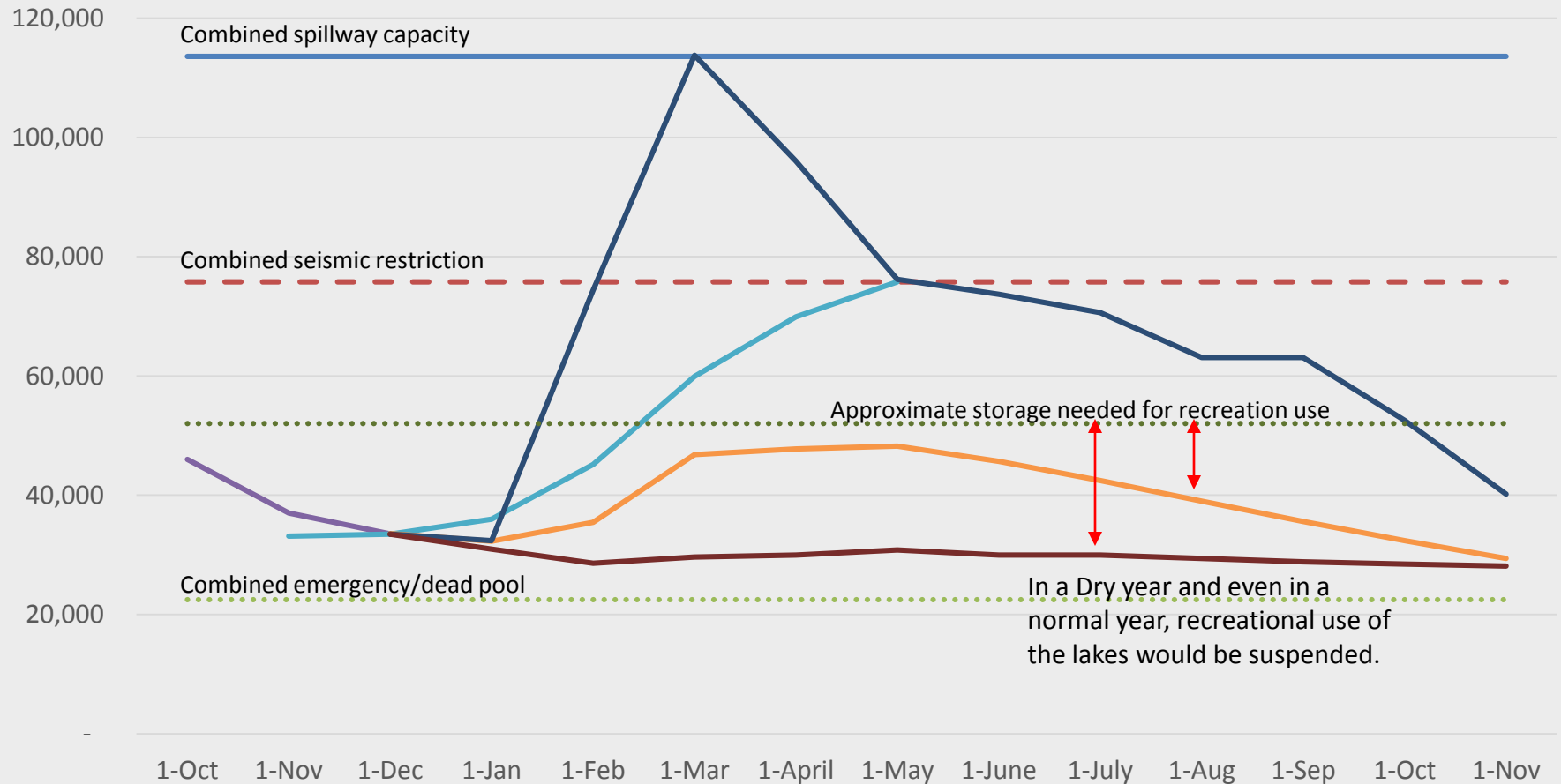
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Page 29 of 46
Attachment 2



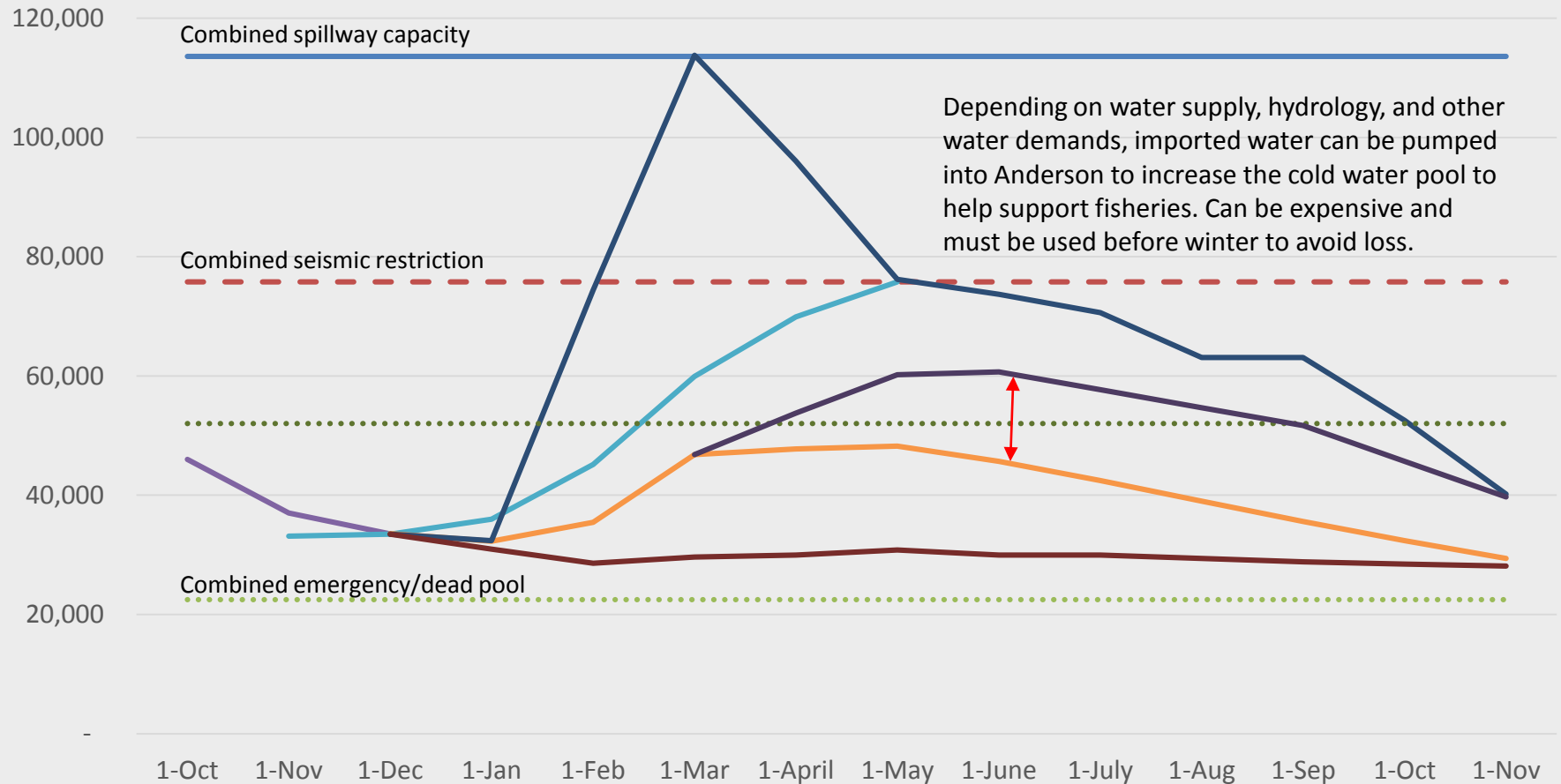
Proposed Reservoir Operations

Combined Anderson & Coyote Storage



Proposed Reservoir Operations

Combined Anderson & Coyote Storage



— Spillway

— 40% Rule Curve

..... Recreation

- - - Seismic Restriction

— Average

— Pump In

..... Emergency

— 2017

— Planned Ops

— Dry

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Page 31 of 46
Attachment 2



Potential Operational Impacts of a 40% Exceedance Curve

- Less than 40% probability of exceeding seismic restriction.
- Reservoir spilling of up to 1,400 cfs in a repeat of 2017 storms.
- Suspended recreation with normal or below normal rainfall.
- Limited cold water pool for fisheries releases.

Recommendation

Based on the District's current water supply projection, direct staff to operate the Anderson Reservoir system in 2017/18 to:

- Reduce the risk of flood events along Coyote Creek.
- Provide adequate water supplies.
- Balance other beneficial uses.
- Return next summer with a report and recommendation.



Committee:	Coyote Creek Flood Risk Reduction
Meeting Date:	10/05/17
Agenda Item No.:	4.2
Unclassified Manager:	Afshin Rouhani
Email:	arouhani@valleywater.org
Est. Staff Time:	15 Minutes

COMMITTEE AGENDA MEMO

SUBJECT: Update on Joint City of San Jose and Santa Clara Valley Water District Emergency Action Plan for Severe Storms and Flood Response

RECOMMENDED ACTION:

Receive information on the Emergency Action Plan (EAP) being jointly developed by the City of San Jose (City) and Santa Clara Valley Water District (District) and preparations for related Coyote Creek Community Resource Fairs, and provide feedback as needed.

SUMMARY:

On February 21, 2017, record flooding occurred along Coyote Creek upstream of Montague Expressway. As a result, the District's Chief Executive Officer (CEO) and the San Jose City Manager met and agreed to proceed with development of a joint EAP. This commitment was later included in resolutions adopted by the City Council and District Board on April 28, 2017.

An update on the development of the EAP was provided to the District Board of Directors at the Board Meeting of August 22, 2017. The update included general information about the EAP and its development and outlined four key milestones to complete the EAP as set out in the resolutions. The four milestones discussed in order of completion were:

- 1) Conduct a Joint City and District Table Top Exercise of the Draft EAP.
- 2) Provide an update to the Board's Coyote Creek Flood Risk Reduction Ad-Hoc Committee.
- 3) Conduct Resource Fairs to improve flood preparedness in the communities that flooded in 2017.
- 4) District Board of Directors and City Council approve EAP.

The key milestones are all on schedule. A joint table top exercise was completed on September 21, 2017. Coyote Creek Community Resource Fairs are being planned for the month of October. The EAP will be presented to the City Council and District Board for discussion and approval at a joint meeting scheduled for Friday, November 3, 2017.

BACKGROUND:

Following the direction from the District CEO and San Jose City Manager, a joint working group of the two agencies was formed to develop a joint Emergency Action Plan (EAP) designed to ensure better communications, planning and implementation between the agencies for severe storms and flood events with a specific focus on Coyote Creek flood threats.

The resulting plan is based on the concept of a Multi-Agency Coordination (MAC) Group and provides guidance for the agencies to coordinate in a joint response to storm and flood emergencies that happen in the City. This is similar to a MAC that was implemented for San Fransquutio Creek where agencies make decisions or communicate with each other based on a shared set of metrics and planned responses, and that resulting communications to the affected public are coordinated and consistent.

Knowledge gained from the 2017 Coyote Creek flood is embodied in the EAP so that decision-making, action planning and public communications are based on a single, shared set of graduated operational levels, which is referred to as a condition level. Depending on available detailed flood stage modeling or measurements, the condition is further described for severity of flooding at specific locations

To expand the last point, the condition matrix presents four levels of operational readiness and response:

- **Flood Preparedness**: This is the default status in the absence of storm warnings or threatened reservoir spillages. This status is ongoing and requires actions to ensure that both agencies and the MAC have undertaken preventive and preparatory activities so as to smoothly escalate to the next threat level if necessary. Public preparedness activities are conducted, including plans for watershed preparation and public information events.
- **Flood Monitoring**: This stage is activated when flooding is estimated to occur more than 72 hours in the future or stream depths are 50% to 70% of flood stage. This state initiates heightened level of alertness, measurement and modeling. Each agency's Emergency Operations Center (EOC) may be activated, with possible virtual MAC and EAP activation. Public information is disseminated.
- **Flood Watch**: This stage will be declared by the MAC leadership when stream depths are estimated to reach flood stage within 24-72 hours or stream depths are measured at 70% to 100% of flood stage. Both agencies activate or increase staffing in their EOCs, and a MAC EOC will be established, with a formal EOC Action Plan created. The public will be warned and provided with information regarding evacuation procedures, shelter info, etc.
- **Flood Warning**: This is the urgent level, with imminent flooding within 24 hours or when stream depth is measured at 100% or greater of flood stage. Both EOCs are fully staffed 24/7 for the duration, alerting the public to the need for and managing evacuations. The MAC EOC will coordinate both agencies' operational and communications responses. Public information is jointly provided via all available channels, 24/7 for the duration.

The flood severity used in the EAP is defined by the National Weather Service as:

- **Action**: an established gage height which when reached by a rising stream, lake, or reservoir represents the level where action is taken in preparation for possible significant hydrologic activity.
- **Minor Flooding**: minimal or no property damage, but possibly some public threat (e.g., inundation of roads).
- **Moderate Flooding**: some inundation of structures and roads near stream, evacuations of people and/or transfer of property to higher elevations.
- **Major flooding**: extensive inundation of structures and roads, significant evacuations of people and/or transfer of property to higher elevations.

A flood inundation map for the 2017 Coyote Creek flood event showing on-site monitoring locations is included as Attachment 1 and Attachment 2 is the associated Coyote Creek On-Site Monitoring Thresholds for flooding (The flood inundation map is based upon the 2017 conditions and are for illustration and general analysis purposes only. In a future event, they must be supplemented by and are secondary to actual field observations.) In addition, a Madrone Gauge Flood Severity Threshold table is included as Attachment 3, which is based on the 2017 event. The flood stage on Coyote Creek can either be estimated by using weather forecasts to model stream depths at that location or may be based on actual field observations. This information would be used to establish threat levels and the estimated flood severity on Coyote Creek for specific areas subject to flooding. Below are examples of how the tables will be used.

EXAMPLE 1 - Stream depth at the Madrone gauge is at 5 feet, but is estimated to reach 10 feet in 24 hours, the threat condition would be **Flood Watch**, since it is 24 to 72 hours in the future, and the severity would be described as **Moderate Flooding**. The specific areas subject to flooding are described in the Madrone Gauge Flood Severity Threshold table for 10-foot stage.

EXAMPLE 2 – Stream depth at the Madrone gauge is currently measured at 13 feet, the threat condition is **Flood Warning**, since travel times to all flooding locations is less than 24 hours, and the severity is categorized as **Major Flooding** with areas subject to flooding described in the Madrone Gauge Flood Severity Threshold table.

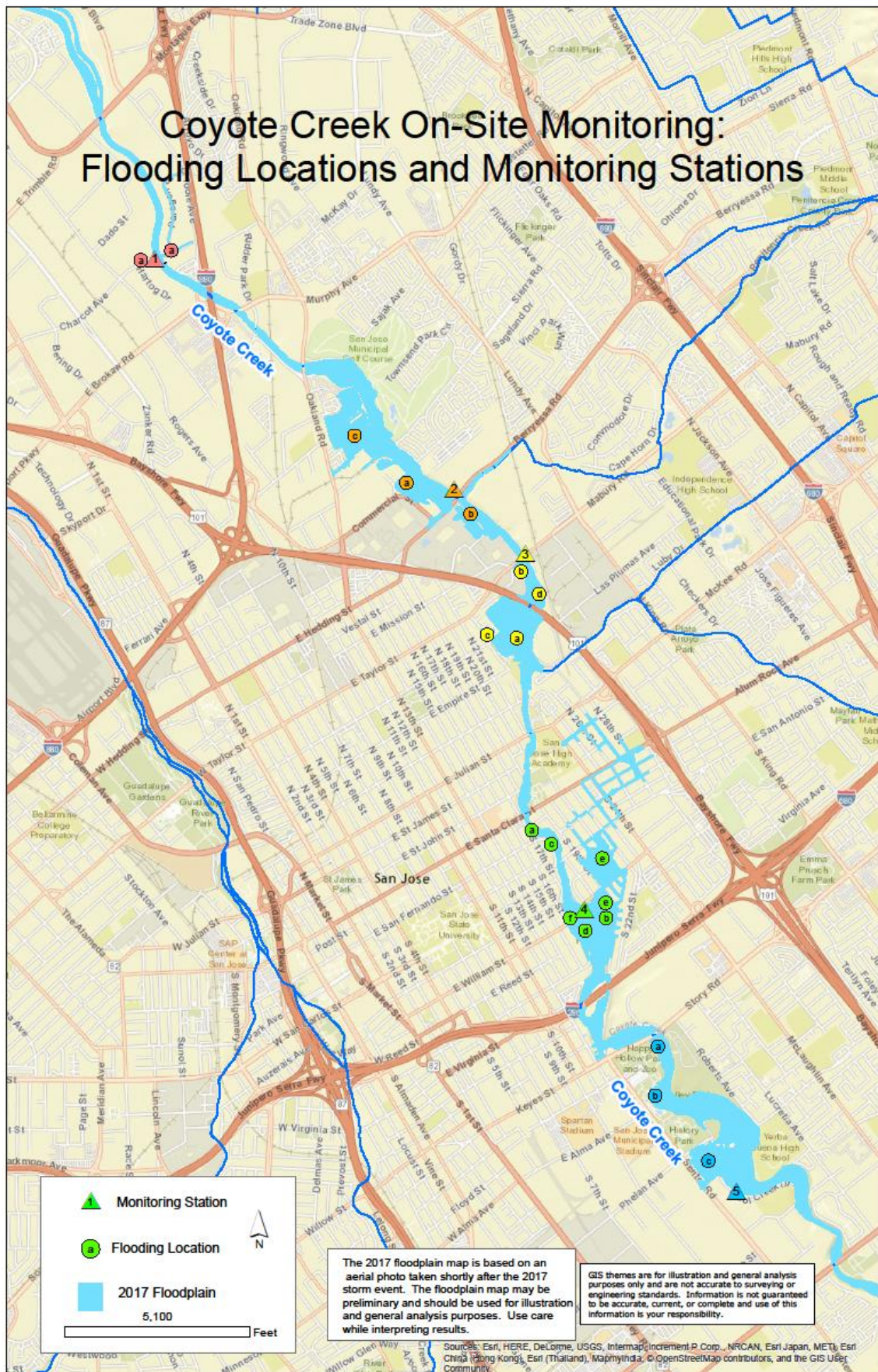
EXAMPLE 3 – The stream gauge at William Street Bridge is observed to be at 23 feet. Using information from Coyote Creek On-Site Monitoring Thresholds table, the threat level would be **Flood Warning** for **Minor Flooding** that affects three low-lying structures on 17th Street along the creek bank.

Some of the condition levels and flood severity information along with public communications methods, website improvements and other flood preparedness actions will be part of the Coyote Creek Community Resource Fairs. Specific content for these Resource Fairs is still in development and will be discussed with the Ad-Hoc Committee for input.

ATTACHMENT(S):

None.

Coyote Creek On-Site Monitoring: Flooding Locations and Monitoring Stations



COYOTE CREEK FLOOD ON-SITE MONITORING THRESHOLDS							
Index Location	Flooding Description	ID #	FLOOD THREAT STAGE AT				MONITORING LOCATIONS
			50% Capacity	70% Capacity	100% Capacity	2017 Flood High Water Mark	
Charcot	Charcot Bridge overtops, flooding in streets and eventually threatening nearby businesses.	1a	14 to 15	16 to 17	18 to 19	18.9	Charcot Road Bridge
Downstream Berryessa Rd - Industrial	Businesses west of Coyote Creek floods. Automotive junkyard and concrete plant at risk.	2a	5 to 6	6 to 7	8 to 9	16.1	Berryessa Road Bridge
Upstream Berryessa Rd - Industrial	Industrial area west of Coyote Creek floods threatening businesses.	2b	10 to 11	12 to13	13 to 14		
Mobile Home Parks	Levee to the west of Coyote Creek overtops, flooding streets and homes. Businesses near the the railroad tracks at risk.	2c	12 to 13	14 to 15	15 to 16		
Watson Park	Dog park begins to flood first, followed by the Watson Park.	3a	12 to 13	13 to 14	15 to 16	22.0	Maybury Road Bridge
RV Storage Lot	RV Lot west of Coyote Creek flooded.	3b	13 to 14	16 to 17	18 to 19		
Watson Park Neighborhood	Streets immediately to the west of Watson park begin to flood.	3c	15 to 16	18 to 19	20 to 21		
CSJ Mabury Yard	Coyote Creek overtops the east bank, flooding the city of San Jose Yard.	3d	17 to 18	19 to 20	22 to 23		
Disclaimer: The flooding thresholds in this table are based on hydraulic modeling results calibrated with data collected during the February 2017 flood event. Hydraulic modeling results may be preliminary and should be used for general analysis purposes. Information is accurate within the model limitations and assumptions/data used for model development. Use care while interpreting results.							

COYOTE CREEK FLOOD ON-SITE MONITORING THRESHOLDS							
Index Location	Flooding Description	ID #	FLOOD THREAT STAGE AT				MONITORING LOCATIONS
			50% Capacity	70% Capacity	100% Capacity	2017 Flood High Water Mark	
17th Street - Lowest Homes	Three low-lying structures begin to flood.	4a	15 to 16	18 to 19	20 to 21	33.3	William Street Bridge
Selma Park	Park east of Coyote Creek begins to flood.	4b	18 to 19	21 to 22	24 to 25		
17th St & Arroyo Way	Several low-lying homes located very near the Creek on the west side begin to flood.	4c	19 to 20	22 to 23	25 to 26		
William Street Park	Coyote Creek Trail & Park, including Olinder School baseball field, begin to flood.	4d	22 to 23	25 to 26	28 to 29		
NE of 12th & Keyes Streets	Car ports-located on the first floor of two-story apartment buildings- begin to flood	4e	14 to 15	16 to 17	17 to 18		
Olinder Neighborhood and School	Selma park fills and overflows to the northeast, flooding streets, the school, and homes. Water does not return to creek and flows northeasterly through streets.	4f	26 to 27	29 to 30	31 to 32		
Area northwest of E. William St.	E. William St. overtops on the west side of Coyote Creek, flooding homes, backyards, and streets.	4g	27 to 28	30 to 31	32 to 33	20.6	Rocksprings Stable Drive
Happy Hollow Zoo	Low lying areas, including animal enclosures begin to flood.	5a	13 to 14	15 to 16	17 to 18		
Kelley Park	Park begins to flood.	5b	14 to 15	16 to 17	17 to 18		
Rocksprings Neighborhood	Homes and streets begin to flood.	5c	15 to 16	17 to 18	18 to 19		
Disclaimer: The flooding thresholds in this table are based on hydraulic modeling results calibrated with data collected during the February 2017 flood event. Hydraulic modeling results may be preliminary and should be used for general analysis purposes. Information is accurate within the model limitations and assumptions/data used for model development. Use care while interpreting results.							

COYOTE CREEK - ANDERSON SPILLWAY / MADRONE GAUGE FLOOD IMPACTS (E-19) (1 of 2)		
Severity	Stage (ft)	Description
Action	6	Low flow crossings across Coyote Creek will be inundated.
Minor Flooding	7	Flooding to low lying businesses northwest of Berryessa Road and Coyote Creek.
Minor Flooding	8	Horse Ranch opposite the Rock Springs Neighborhood at risk of flooding. Watson Park and Coyote Creek Trail at Selma Park begins to flood. Homes in the creek along Arroyo Way and 17th Street northwest of East William Street begin to flood. Flooding to businesses northwest of Berryessa Road and Coyote Creek.
Moderate Flooding	9	Apartments that back onto Coyote Creek at the intersection of Keyes Street and South 12th Street begin to flood lower level garages. Watson and Selma Parks flooding. Homes along Arroyo Way and 17th Streets, and homes northwest of William Street and the creek flood. Flooding beings at Willams Street Park, Happy Hollow Zoo and Kelley Park. Berryessa Road is at risk of localized street flooding, with business northwest of Berryessa Road and Coyote Creek flooding.
Moderate Flooding	10	Sycamore Avenue accessing the Boys Ranch Detention Facility at risk of inundation. Low areas in Happy Hollow Zoo affecting structures and animals flood. Rock Springs Neighborhood at risk of flooding. Apartments that back onto Coyote Creek at the intersection of Keyes Street and South 12th Street at risk. Homes located near the creek along Arroyo Way and 17th Street, Brookwood Avenue, S 16th Street and East William Street, 19th Street between San Antonio and Calhoun are at risk. Olinder school begins to flood. Watson, Selma, Kelley, and William Street Parks are flooding. Low areas of Roosevelt Park are flooded. Woodborough Drive starts to become innundated. A few homes located in the RV storage lot south of Maybury Drive may flood. Business northwest and southwest of Berryessa Road and Coyote Creek flood.
Major Flooding	11	Sycamore Avenue accessing the Boys Ranch Detention Facility flooded. Rock Springs Neighborhood, Kelly Park, and Happy Hollow Zoo flooding. Apartment buildings at Keyes Street and South 12th Street possibly flooded. Homes along Arroyo Way and 17th Street, homes north of William Street on South 16th Street and East William, homes along Brookwood Avenue, and 19th Streets are at flood risk. Selma Park inundated and overflows into Olinder Neighborhood. Minor flooding at Olinder School. William Street Park is inundated. Watson Park inundated and begins to flood Monfernio Drive. RV Storage lot north of US-101 flooded. Flooding in the offices and industrial areas north and south of Berryessa Road west of the creek. The floodwall on the south side of Golden Wheel and South Bay Mobile Home Parks begin to overtop.
Disclaimer: The flooding thresholds in this table are based on hydraulic modeling results calibrated with data collected during the February 2017 flood event. Hydraulic modeling results may be preliminary and should be used for general analysis purposes. Information is accurate within the model limitations and assumptions/data used for model development. Use care while interpreting results.		

COYOTE CREEK - ANDERSON SPILLWAY / MADRONE GAUGE FLOOD IMPACTS (E-19) (2 of 2)		
Severity	Stage (ft)	Description
Major Flooding	12	<p>Sycamore Avenue accessing the Boys Ranch Detention Facility flooded, and adjacent Malaguerra Avenue intersections inundated.</p> <p>Flooding to the Rock Springs Neighborhood, Kelley Park, and Happy Hollow Zoo.</p> <p>Apartments that back onto Coyote Creek at the intersection of Keyes Street and South 12th Street flooded at lower levels.</p> <p>Flooding in the Olinder Neighborhood, to houses located along Arroyo Way and 17th Street.</p> <p>Selma Park and William Street Park flooded.</p> <p>Moderate flooding to homes north of East William Street west of the Creek and to Olinder School.</p> <p>Minor flooding occurs at the neighborhood on Monferio Drive located west of Watson Park, with the park being flooded.</p> <p>Mobile homes located in the RV storage lot north of US-101 flood.</p> <p>Flooding to commercial businesses north and south of Berryessa Road on the west side of the Creek.</p> <p>Flooding in the Golden Wheel and South Bay Mobile Home Parks.</p> <p>Minor street flooding occurs at Charcot Ave due to bridge overtop.</p>
Historical High Water	12.06'	February 2017
Major Flooding	13	<p>Hellyer park has significant flooding.</p> <p>Major flooding in the Rock Springs Neighborhood and adjacent horse ranch.</p> <p>Happy Hollow Zoo and Kelley Park flooded.</p> <p>Lower levels of apartment buildings at Keyes and 12th Street are flooded.</p> <p>East William/Olinder Neighborhood (South 22nd Street, South 21st Street, Brookwood Avenue and 19th, 20th, and 21st Street) flood with flows moving northeast towards US-101 and Lower Silver Creek</p> <p>Ponding of concern on the Southside of Lower Silver Creek at West Court and Anne Darling Elementary School, South 16th Street and East William near the Creek, Brookwood Avenue, Arroyo Way and South 17th Street, and Gilthero Court.</p> <p>Flooding for Olinder Elementary School, and San Jose Community Middle and High Schools.</p> <p>East Taylor Street and Kellogg Plant on Eggo Way flooding.</p> <p>RV storage park north of US-101 flooding.</p> <p>US-101 flooding near Mabury Road.</p> <p>Commercial and industrial area near Berryessa Road are significantly flooded.</p> <p>Major flooding in the Mobile Home Parks.</p> <p>Spill at Charcot Avenue Bridge escapes to the east of Charcot Avenue Bridge toward I-880 and CA-237, and escapes to the west toward Montague Expressway and North 1st Street.</p>
Major Flooding	14	<p>Disastrous flooding occurs along Coyote Creek downstream of Tully to the San Francisco Bay.</p> <p>Rock Springs Neighborhood and adjacent horse ranch inundated.</p> <p>Apartment buildings at the intersection of Keyes Street and S 12th Street flooded.</p> <p>Happy Hollow Zoo and Kelley Park flooded.</p> <p>Spills from Selma Park flow northerly to flood a large area east of the creek, continuing northward to Upper Penitencia Creek, overflowing Hwy 101.</p> <p>West bank outbreaks at Watson Park, N 20th Street, Roosevelt Street, N 19th Street at its southern end, N 18th Street, East St. John Street, East Santa Clara Street and S 17th Street</p> <p>The neighborhood located northwest of Watson park may be flooded.</p> <p>Floodwaters converge to the Commercial Street Neighborhood around N 4th Street and N 10th Street to cause flooding north of I-880 in San Jose, California.</p> <p>Businesses north and south of Berryessa Road and west of the creek are inundated.</p> <p>The South Bay and Golden Wheel Mobile home parks are inundated; there is risk that floodwaters could overtop and flood homes to the west.</p> <p>Charcot Bridge overtopping on both right and left banks flowing away from the Creek flooding an area roughly between Coyote Creek and Guadalupe River, and between Montague Expressway to CA-237.</p> <p>Japantown, Hyde Park, and Northside San Jose are possible flooded.</p>
<p>Disclaimer: The flooding thresholds in this table are based on hydraulic modeling results calibrated with data collected during the February 2017 flood event. Hydraulic modeling results may be preliminary and should be used for general analysis purposes. Information is accurate within the model limitations and assumptions/data used for model development. Use care while interpreting results.</p>		



Committee:	Coyote Creek Flood Risk Reduction
Meeting Date:	10/05/17
Agenda Item No.:	4.3
Unclassified Manager:	Michele King
Email:	mking@valleywater.org
Est. Staff Time:	5 Minutes

COMMITTEE AGENDA MEMO

SUBJECT: Review of Coyote Creek Flood Risk Reduction Ad Hoc Committee Work Plan, any Outcomes of Board Action or Committee Requests and the Committee's Next Meeting Agenda

RECOMMENDED ACTION:

Review the Committee work plan and Planning Calendar to guide the Committee's discussions regarding policy alternatives and implications for Board deliberation.

SUMMARY:

The attached Work Plan and Planning Calendar outlines the topics for discussion to be able to prepare policy alternatives and implications for Board deliberation. The work plan and planning calendar are agendaized at each meeting as accomplishments are updated and to review additional work plan assignments by the Board.

BACKGROUND:

Governance Process Policy-8:

The District Act provides for the creation of advisory boards, committees, or commissions by resolution to serve at the pleasure of the Board.

The Board Ad Hoc Committee is comprised of less than a quorum of the Board and/or external members having a limited term, to accomplish a specific task, is established in accordance with the Board Ad Hoc Committee procedure (Procedure No. W723S01), and will be used sparingly. Annually, the purpose of an established Ad Hoc Committee will be reviewed to determine its relevance.

In keeping with the Board's broader focus, Board Committees will not direct the implementation of District programs and projects, other than to receive information and provide advice and comment.

ATTACHMENT(S):

Attachment 1: Coyote Creek Flood Risk Reduction Ad Hoc Committee 2017 Work Plan

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The annual work plan establishes a framework for committee discussion and action during the annual meeting schedule. The committee work plan is a dynamic document, subject to change as external and internal issues impacting the District occur and are recommended for committee discussion. Subsequently, an annual committee accomplishments report is developed based on the work plan and presented to the District Board of Directors.

ITEM	WORK PLAN ITEM	MEETING	INTENDED OUTCOME(S) (Action or Information Only)	ACCOMPLISHMENT DATE AND OUTCOME
1	Meeting and Tour of Coyote Creek	August 24	<ul style="list-style-type: none"> Tour the Coyote Creek Flood Project 	Accomplished August 24, 2017:
2	Election of Chair and Vice Chair for 2017	August 31	<ul style="list-style-type: none"> Committee Elects Chair and Vice Chair for 2017. (Action) 	Accomplished August 31, 2017: The Committee elected the 2017 Committee Chair and Vice Chair, Director Tony Estremera and Director Barbara Keegan respectively.
3	Short-term Flood Risk Reduction for Coyote Creek	August 31	<ul style="list-style-type: none"> Review of Short-term Flood Risk Reduction for Coyote Creek. (Action) Provide comments to the Board, as necessary. 	Accomplished August 31, 2017: The Committee reviewed the short-term flood risk reduction for Coyote Creek.
4	Identify Potential Future Short-Term Flood Risk Reduction Topics and Identify Committee Meeting Schedule to Review Identified Topics	August 31	<ul style="list-style-type: none"> Identify Potential Future Short-Term Flood Risk Reduction Topics and Identify Committee Meeting Schedule to Review Identified Topics. (Action) Provide comments to the Board, as necessary. 	Accomplished August 31, 2017: The Committee identified potential future short-term flood risk reduction topics and identified committee meeting schedule to review identified topics.

ITEM	WORK PLAN ITEM	MEETING	INTENDED OUTCOME(S) (Action or Information Only)	ACCOMPLISHMENT DATE AND OUTCOME
5	Short-term Flood Risk Reduction for Coyote Creek – Reservoir Operations	October 5	<ul style="list-style-type: none"> Discussion of Short-term Flood Risk Reduction for Coyote Creek – Reservoir Operations (Action) Provide comments to the Board, as necessary. 	
6	District and City of San Jose Joint Emergency Action Plan	October 5	<ul style="list-style-type: none"> Discussion on the District and City of San Jose Joint Emergency Action Plan. (Action) Provide comments to the Board, as necessary. 	
7	CEQA Research and Prepare Documents	TBD	<ul style="list-style-type: none"> Discuss CEQA Research and Prepare Documents. (Action) Provide comments to the Board, as necessary. 	
8	Permitting Processes (Expediting)	TBD	<ul style="list-style-type: none"> Discussion on Permitting Processes (Expediting) (Action) Provide comments to the Board, as necessary. 	

ITEM	WORK PLAN ITEM	MEETING	INTENDED OUTCOME(S) (Action or Information Only)	ACCOMPLISHMENT DATE AND OUTCOME
9	Research Pump-Over Capability	TBD	<ul style="list-style-type: none"> Receive research pump-over capability information. (Action) Provide comments to the Board, as necessary. 	
10	Research Reduced Storage Operations	TBD	<ul style="list-style-type: none"> Receive research reduced storage operations information. (Action) Provide comments to the Board, as necessary. 	