EBMUD

BOARD OF DIRECTORS
EAST BAY MUNICIPAL UTILITY DISTRICT

375 - 11th Street, Oakland, CA 94607 Office of the Secretary: (510) 287-0440

Notice of Time Change

PLANNING COMMITTEE MEETING

8:00 a.m.
Tuesday, April 11, 2017

Notice is hereby given that on Tuesday, April 11, 2017 the Planning Committee Meeting of the Board of Directors has been rescheduled from 9:15 a.m. to 8:00 a.m. The meeting will be held in the Training Resource Center of the Administration Building, 375 - 11th Street, Oakland, California.

Dated: April 6, 2017

Rischa S. Cole

Rischa S. Cole
Secretary of the District

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BOARD OF DIRECTORS
EAST BAY MUNICIPAL UTILITY DISTRICT

375 – 11th Street, Oakland, CA 94607 Office of the Secretary: (510) 287-0440

AGENDA

Planning Committee
8:00 a.m.
Tuesday, April 11, 2017
Training Resource Center

(Committee Members: Directors Mellon {Chair}, Linney and Young)

ROLL CALL:

PUBLIC COMMENT: The Board of Directors is limited by State law to providing a brief response, asking questions for clarification, or referring a matter to staff when responding to items that are not listed on the agenda.

DETERMINATION AND DISCUSSION:

1. 2016 Mokelumne Fall-run Chinook Salmon and Steelhead Returns (Sykes)
2. AC Transit Bus Rapid Transit Water Main Relocations - Update (X. Irias)
3. Earthquake Preparedness (Wallis)

ADJOURNMENT:

Disability Notice

If you require a disability-related modification or accommodation to participate in an EBMUD public meeting please call the Office of the Secretary (510) 287-0404. We will make reasonable arrangements to ensure accessibility. Some special equipment arrangements may require 48 hours advance notice.

Document Availability

Materials related to an item on this Agenda that have been submitted to the EBMUD Board of Directors within 72 hours prior to this meeting are available for public inspection in EBMUD's Office of the Secretary at 375 11th Street, Oakland, California, during normal business hours, and can be viewed on our website at www.ebmud.com.

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EAST BAY MUNICIPAL UTILITY DISTRICT

DATE: April 6, 2017

MEMO TO: Board of Directors

THROUGH: Alexander R. Coate, General Manager

FROM: Richard G. Sykes, Director of Water and Natural Resources

SUBJECT: 2016 Mokelumne Fall-run Chinook Salmon and Steelhead Returns

INTRODUCTION

The 2016 fall-run Chinook salmon returns to the Mokelumne River were an estimated 8,871 fish, including 1,984 fish that spawned in the river and 6,887 that were collected at the hatchery for egg production. While lower than the annual returns of at least 12,000 observed each of the previous five years, the 2016 return is about 183 percent of the long-term average (4,849). One indicator EBMUD uses to assess the health of the Mokelumne fishery is the running nine-year average escapement, which represents three complete three-year salmon life cycles. With the addition of the 2016 returns, the nine-year average annual escapement is 9,623 fish or 198 percent of the long-term average. Additionally, steelhead trout returning to the hatchery exceeded 700 adult fish, which is the highest return recorded. This memo provides a brief review of the 2016 return and the key factors affecting salmon and steelhead escapement to the Mokelumne River. A presentation on this information is scheduled for the April 11, 2017 Planning Committee meeting.

DISCUSSION

Although early rains in October 2016 signaled that the four year drought might be coming to a close, impacts of drought conditions significantly influenced fall-run Chinook salmon returns Central Valley-wide in 2016. The 2016 salmon return was primarily made up of two and three year-old fish which experienced significant impacts in the form of low Delta outflows and high temperatures during their rearing and outmigration in spring 2014 and 2015. Most river systems continued to experience significant reductions in salmon numbers compared to long-term average returns. Salmon returns in the Central Valley are cyclical, typically declining in dry years and years of warmer ocean temperatures, and increasing in wet years and years of cooler ocean temperatures. However, there are many other important factors that influence escapement, particularly on the Mokelumne River, where salmon have to traverse the Delta and are impacted significantly by export pumps, Delta Cross Channel (DCC) operation and predation. Figure 1 shows salmon escapement to the Mokelumne since records began in 1940.

As the effects of drought linger, management actions will be focused on maximizing the benefits of water supplies allocated to in-river fisheries. Much of the focus this past fall was managing releases from Pardee and Camanche reservoirs to maximize the benefits for fish attraction while

meeting flood control requirements. Although the drought has resulted in challenges, the 2016 Mokelumne escapement continued to be strong and nearly two times the long-term average. Program changes implemented in 2009 and continued through 2016 have played a role in recovering and increasing the Mokelumne population more quickly than any other system in the Central Valley. Program changes included moving the release location of the hatchery fish to Jersey Point to balance increased survival and reduced straying, conducting fall pulse flows, working with our partners to close the DCC gates, and innovative trap and haul programs to increase survival of naturally produced juveniles. With all of these actions the goal is to maximize the number of salmon surviving and returning to the Mokelumne River.

Since 2009 the strategy of releasing pulse flows, higher volumes of water for a period of a day or more, has been extremely successful in boosting salmon returns to the river. EBMUD coordinated with Woodbridge Irrigation District (WID) on 10 pulse flow events beginning in October 2016. The pulses through November all resulted in large increases in daily passage of salmon past Woodbridge Dam. Staff continues to work with operators on the Stanislaus River to coordinate timing of pulses to maximize effectiveness for each of the systems.

The Mokelumne salmon population continues to make up a significant portion of the commercial and recreational catch off the coast of California. Numbers released by California Department of Fish and Wildlife (CDFW) show that Mokelumne salmon made up approximately 16 percent of the commercial and 19 percent of the recreational catch respectively. Considering the size of watershed, average annual runoff, and modest (less than 3 percent) Delta outflow contribution, the Mokelumne's contribution to the salmon industry is significant.

Steelhead trout returns for the Mokelumne River (primarily measured at the hatchery) have never been substantial since records were first kept in 1963. The District and various resource agency partners who comprise the Mokelumne River Hatchery Coordination Team (HCT) have, over the course of the last 10 to 15 years, implemented numerous measures such as changing release locations, eliminating egg imports, and improving rearing techniques. In 2016, over 700 adult steelhead entered the hatchery and resulted in an egg take of approximately 650,000, both record numbers. As a comparison, in 2015 the return was 64 steelhead, resulting in 47,000 eggs being collected. With small population numbers, the HCT is particularly concerned about inbreeding in the Central Valley steelhead population. To address this, the HCT collaborated with the National Marine Fisheries Service Southwest Science Center to collect tissue samples for genetic analysis. This information was then used to create a spawning plan to minimize inbreeding.

NEXT STEPS

Although precipitation levels within the Mokelumne River watershed are currently near record levels, the effects of drought will linger due to poor water quality conditions that returning adult salmon were exposed to as juveniles. Actions to overcome these effects will continue to be at the forefront of fisheries management activities. Staff, working with resource agencies, will continue to implement actions to improve the survival of juvenile salmon as they migrate through the central Delta. These actions will include barging of a portion of the hatchery production and

conducting spring pulse flows. District biologists will continue to be engaged with resource agency staff, advocacy groups and others in key forums, such as the Central Valley Project Improvement Act Science Integration Team, Hatchery Scientific Review Group Statewide Policy Team and Central Valley Hatchery Coordination Team, to help guide the process toward an outcome that will continue the successes of the last eight years. Additionally, EBMUD is actively involved in the Bay Delta Water Quality Control Plan Phase 2 process and will continue work with resource agencies and others to ensure that any outcome is protective of the Mokelumne fishery and that the hatchery continues to support a sustainable fishery in a manner that is compatible with the protection and recovery of listed salmonids in the Central Valley.

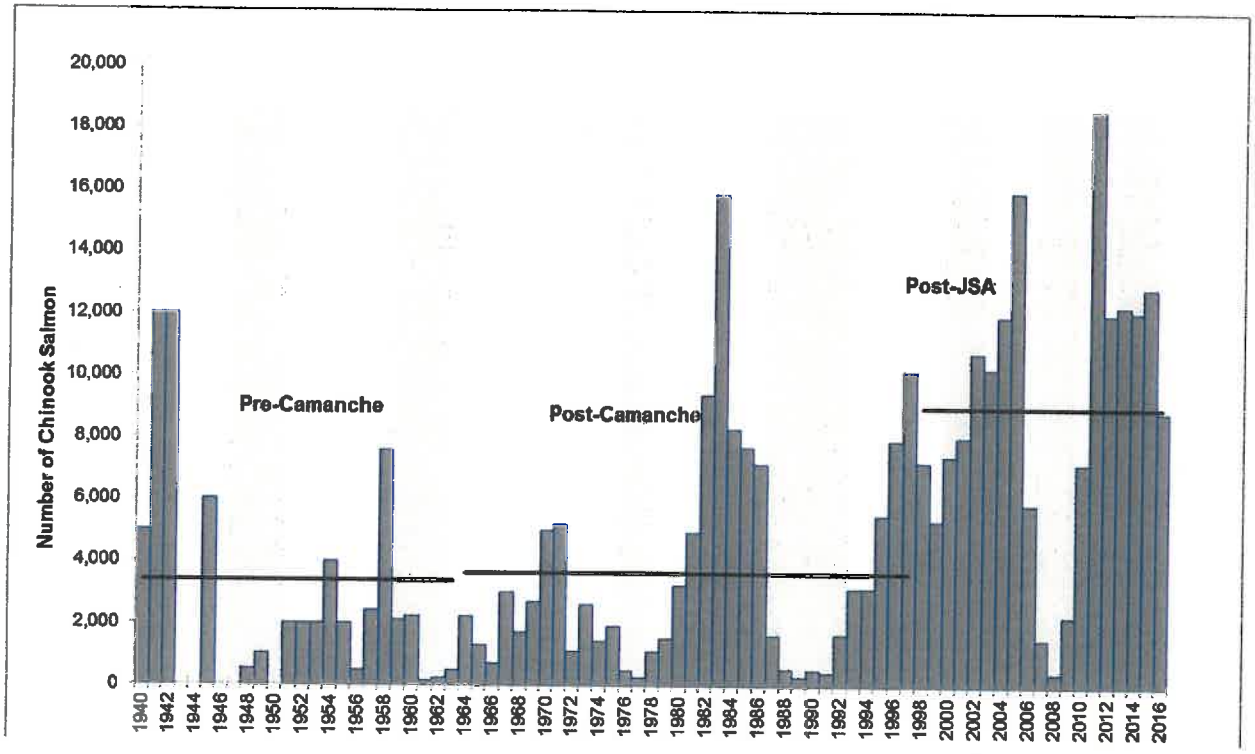

Figure 1. Annual Chinook salmon escapement totals to the lower Mokelumne River since 1940 with drought periods delineated.

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EAST BAY MUNICIPAL UTILITY DISTRICT

DATE: April 6, 2017

MEMO TO: Board of Directors

THROUGH: Alexander R. Coate, General Manager

FROM: Xavier J. Irias, Director of Engineering and Construction

SUBJECT: AC Transit Bus Rapid Transit Water Main Relocations - Update

INTRODUCTION

The Alameda-Contra Costa Transit District (AC Transit) East Bay Bus Rapid Transit (BRT) Project will provide new rapid bus service between 20th Street in downtown Oakland to the San Leandro BART station (see attached location map). The new bus route is primarily along International Boulevard and East 14th Street within the City of Oakland and Caltrans jurisdictions. The original project scope would have required significant distribution pipeline relocation by the District. A project overview was provided to the Planning Committee on April 12, 2016.

Since the last Planning Committee update, the District has proactively coordinated with the AC Transit construction team and stakeholders to achieve a reduced paving scope, and a construction schedule that better addresses the District's concerns and schedule needs. This memo provides further information on the current status and next steps. A presentation on this topic is scheduled for the April 11, 2017 Planning Committee Meeting.

DISCUSSION

The original AC Transit East Bay BRT Project scope required deep pavement reconstruction, as well as mill and overlay paving, along the limits of the project's bus corridor. This scope would have required the District to relocate over 10 miles of distribution pipeline and up to 3,700 feet of 20-inch distribution pipeline in International Boulevard.

Following several discussions, in late 2016, the District and AC Transit resolved a number of these design and cost issues in a second amendment to the Project's Utility Agreement. AC Transit agreed to reduce the BRT Project's pavement reconstruction depths from a maximum of 31 inches to 16 inches. Although the cover depth does not meet the District's Engineering Standard Practice at all locations – to provide minimum 24-inches above existing pipelines during construction work – it is an improvement over the initial plan. AC Transit also agreed to pay for the repair of any pipeline broken as a result of their work over the District's pipelines. The District installed leak detection loggers along the BRT corridor to monitor all non-surfacing

and surfacing leaks that occur during construction. Monitoring will provide documentation for claims against AC Transit should any leaks be attributed to their construction.

The amendment also clarified reimbursement costs. It was initially assumed that AC Transit would reimburse the District for all relocation costs related to the BRT Project. However, it has been determined that the District is responsible for all pipeline relocation costs within the State Highway System that extends along SR 185 (International Boulevard/E 14th Street) from 42nd Avenue in Oakland to San Leandro Boulevard in San Leandro pursuant to California Streets and Highway Code Section 114. AC Transit is only responsible for pipeline relocation costs outside the State Highway System, north of 42nd Avenue in Oakland.

Staff are now working to resolve a construction sequencing issue related to replacement of 3,700 feet of 20-inch distribution pipeline in International Boulevard. The District must replace the pipeline before AC Transit's contractor installs median strips and final paving, yet the City of Oakland will not allow both AC Transit and the District to work in the same Project 'zone'. AC Transit and Oakland are aware of the scheduling conflict, and AC Transit is working with the City to reschedule construction Project zones and avoid working within the same area as the District. Depending on the outcome of the negotiation, the District will either need to start relocation immediately in April 2017 or delay the pipeline replacement project to some future date that works within the BRT schedule.

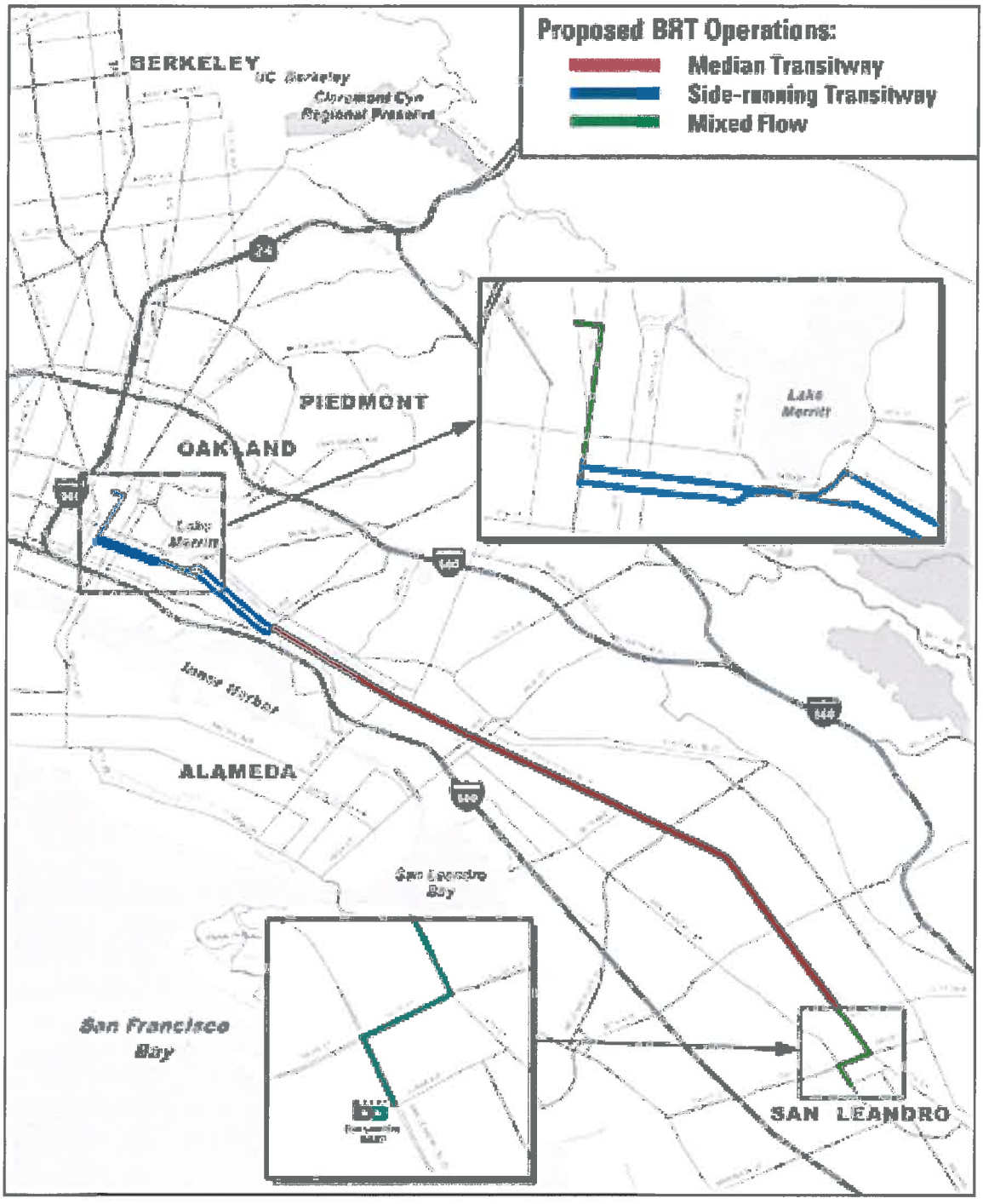
NEXT STEPS

Staff continues to coordinate directly with AC Transit's contractor on the work identified in the Utility Agreement and Amendments. This work includes construction inspection of third party distribution main relocations as well as distribution maintenance for meter, hydrant, and valve adjustments and relocations. The District has requested expedited permit application review from Oakland to help meet schedule needs of the BRT project.

ARC:CDC:als

Attachment: AC Transit BRT Project Location Map

AC Transit BRT Project Location Map



EAST BAY MUNICIPAL UTILITY DISTRICT

DATE: April 6, 2017

MEMO TO: Board of Directors

THROUGH: Alexander R. Coate, General Manager

FROM: Michael J. Wallis, Director of Operations and Maintenance

SUBJECT: Earthquake Preparedness

INTRODUCTION

The District maintains an active Emergency Preparedness Program that includes an Emergency Operations Plan (EOP) in accordance with Policy 7.03. The plan guides the District's critical emergency operations to protect people, property, and the environment, and is updated and improved on a regular basis as new information is gathered, or based upon experience by the District or others.

The United States Geological Survey (USGS) plans to issue a new report regarding the impacts of a large earthquake on the Hayward fault as part of April's Earthquake Preparedness Month. An update on District efforts and the USGS report will be discussed at the April 11, 2017 Planning Committee.

DISCUSSION

The strategic plan includes a strategy to maintain an active emergency preparedness program to plan for and manage the District's functions during an emergency, and allow for efficient and effective recovery following an emergency. The key performance indicators for this strategy are: updating the EOP every two years and conducting an Emergency Operations Team (EOT) exercise annually; updating all Business Continuity Plans (BCPs) every two years and conducting an exercise for each annually; and drafting and/or updating two to three event-specific emergency communication plans annually. In addition, the District continues to harden infrastructure, develop response plans, and conduct exercises to prepare for future earthquakes.

An EOT exercise was conducted last October. Business Continuity exercises are being conducted throughout the year. An update to the EOP and some of the BCPs will be completed by the end of FY17.

In FY17, staff started engaging cities and counties in the service area to plan for disruption of water service following an earthquake. The goals are to support city and county planning to

distribute potable water, provide resources and support as available until state or federal agencies can establish mass care systems, and to prepare for coordination of water system recovery. This effort will continue in FY18.

To study hazards and response, the USGS has created the Science Application for Risk Reduction (SAFRR) Program to incorporate the application of hazard science for the safety, security, and economic well-being of the nation. The SAFRR team's goal is to build resilience to natural hazards such as earthquakes, floods, wildfires, landslides, tsunamis, and coastal erosion by working with decision-making and emergency response organizations across the nation.

The Haywired project under SAFRR is a study of impacts on the San Francisco Bay Area from a magnitude 7.05 earthquake on the Hayward fault. The study builds on the scientific understanding from past earthquakes and the interdependencies among multiple layers of lifelines. This scenario considers impacts from a sequence of aftershocks following the main earthquake, an aspect often overlooked when evaluating the physical and emotional damage associated with large earthquakes.

The District has been providing input to USGS and their contractors to model the damage and recovery of the District's water distribution system in the Haywired scenario. The results of the Haywired project are expected to be released in April. The model predicts that full restoration of the District's water distribution system will take about six months which is consistent with the District's Seismic Improvement Program. The District is hosting a USGS workshop on April 24 to begin engaging a broader group of partners that will determine how to best use the Haywired results to improve seismic risk reduction.

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