CITY OF OAKLAND

AGENDA REPORT

TO: Jestin D. Johnson
City Administrator

FROM: Joe DeVries
Chief Resilience Officer &
Deputy City Administrator
City Administrator's Office

SUBJECT: Grant Funding for Sea Level Rise Improvement Projects from the Building Resilient Infrastructure and Communities Program

DATE: January 22, 2024

City Administrator Approval Jestin Johnson (Feb 1, 2024 13:31 PST) Date: Feb 1, 2024

RECOMMENDATION

Staff Recommends That The City Council Adopt A Resolution:

1) Authorizing The City Administrator To Submit A Grant Application To The Federal Emergency Management Agency (FEMA Grant) For The Building Resilient Infrastructure And Communities Program For A Grant Up To Fifty-Six Million Dollars ($56,000,000), And Authorizing The Commitment Of The Required Non-Federal Match Of One Million Dollars ($1,000,000) And Annual Maintenance Commitment Letter For One Hundred Eighteen Thousand Four Hundred Fifty One Dollars ($118,451) From Measure U Funds For Flooding And Sea Level Rise Adaptation Projects Along San Leandro Creek, Doolittle Drive, And Oakland Airport North Field;

2) Authorizing The City Administrator To Accept And Appropriate The FEMA Grant, If Awarded, In An Amount Up To Fifty-Six Million Dollars ($56,000,000);

3) Authorizing The City Administrator To Apply For, Accept, And Appropriate Required Non-Federal Match Funds From State, Regional, And Local Sources, Both Public And Private, In An Amount Not To Exceed One Million Dollars ($1,000,000) In Lieu Of Measure U Funds, As An Additional Or Alternative Source Of Match Funds; And

4) Making Appropriate California Environmental Quality Act Findings

EXECUTIVE SUMMARY

To enable continued progress on sea level rise adaptation, the City of Oakland (City) and its partners are pursuing federal funding opportunities to advance final design, permitting, and environmental clearance for flood reduction and sea level rise protection projects along the San Leandro Bay waterfront and San Leandro Creek in East Oakland. These projects support the City's Equitable Climate Action Plan (ECAP) and Local Hazard Mitigation Plan (LHMP) goals regarding climate adaptation and risk reduction for vulnerable populations. The City and its partners, including the Port of Oakland, City of Alameda, CalTrans, and a variety of local community-based organizations, are seeking to fund and implement an estimated $181 million in improvement projects along the waterfronts of Oakland and Alameda. This approval would authorize the application for $56 million

from the Federal Emergency Management Agency (FEMA) Building Resilient Community Infrastructure (BRIC) program. This approval would also commit the City to providing a total of $1.0 million in local match funding and a commitment to maintain the newly created infrastructure in future years.

BACKGROUND / LEGISLATIVE HISTORY

In July 2020, through Resolution No. 88267 C.M.S., the City Council adopted the 2030 ECAP, a comprehensive plan to prioritize physical, financial, and social improvements to mitigate and adapt to the impacts of climate change. The ECAP details 40 Actions within the City's regulatory and legal spheres of control to improve Oakland's climate resilience, advance equity, and adapt to the changing conditions associated with rising sea levels, increased risk of flooding and wildfires, and vulnerable infrastructure. On June 15, 2021, through Resolution No. 88706 C.M.S., the City Council adopted the Oakland LHMP, which provides an inventory of potential hazards that the City is most vulnerable to, assesses risks to the city's residents, buildings and critical facilities, and develops a mitigation strategy to reduce the risk of exposure and facilitate a swift and organized recovery from major events. The ECAP and LHMP identify flood risks from changing climate conditions and sea level rise as critical challenges for the City to address.

Climate change, including sea level rise, is increasing the severity of flood hazards on the shoreline. Sea level rise projections suggest that California can expect about one foot of sea level rise by 2050 and about four feet by 2100 if current trends continue. Higher rates of sea level rise could occur if greenhouse gas emissions continue to follow a very high emission scenario, coupled with rapid ice sheet melt and disintegration. Sea level rise exacerbates groundwater rise, liquefaction, and equity issues along Oakland's low-lying areas. Furthermore, atmospheric rivers are expected to become more frequent, contributing to a larger share of precipitation and flooding. In 2023, the San Francisco Bay Conservation and Development Commission (BCDC) issued a study that states adaptation efforts in the San Francisco Bay Area are expected to cost over $100 billion. Alameda County has the highest anticipated costs at $22 billion.

The Oakland waterfront, as well as the low-elevation drainage system of creeks and channels, are at substantial risk of damage as a result of rising sea levels and changing precipitation patterns. Realization of the sea level rise projections identified above would result in significant damage to infrastructure, homes, and resources in low-lying areas, particularly in areas of West Oakland and Deep East Oakland. Particularly for East Oakland communities, seasonal and storm-based flooding already occurs along San Leandro Creek and its tributaries, at portions of the Oakland International Airport (Airport), and on private properties in adjacent neighborhoods such as Columbian Gardens.

Beginning in 2021, City staff formed a partnership with the Port of Oakland, City of Alameda, California Department of Transportation (Caltrans), East Bay Regional Park District (EBRPD), community-based organizations (Community Partners) and other key stakeholders now called the Oakland Alameda Adaptation Committee (OACC).
OAAC is seen as a leader of the collaborative sub-regional approach to adaptation that is now required by legislation signed by the governor in

2023 (SB 272). OAAC is coordinating flood and adaptation projects to protect and restore water and air quality, habitat, recreation, and community resilience and vitality within the Oakland-Alameda sub-region as defined by the San Francisco Estuary Institute's (SFEI) San Francisco Bay Shoreline Adaptation Atlas. The Oakland-Alameda sub-region stretches from the Bay Bridge

touchdown to Oyster Bay in San Leandro, and includes critical assets such as the Oakland International Airport and Seaport, Oakland Coliseum, State Routes 61 and 260, rail lines, I-880 freeway, Coast Guard Island, industrial and commercial development, and residential neighborhoods. The OAAC sub-regional approach helps achieve cost-effective, expedited, and consensus-driven solutions that are more competitive for grant funding to address adaptation needs in a manner consistent with stated community values.

ANALYSIS AND POLICY ALTERNATIVES

The project supports all four Citywide priorities in Oakland. The project supports 1) **holistic community safety** by providing for increased protection of people, property, and land from impacts related to flooding and sea level rise within the project area. The project supports 2) **housing, economic, and cultural security** by improving flood protection sufficient to reduce floodplain boundaries in East Oakland, resulting in greater protection for homes in the Columbian Gardens area and lower risk and cost to homeowners and residents in this area. The project supports 3) **vibrant, sustainable infrastructure** by providing for new, expanded stormwater and transportation infrastructure along Doolittle Drive, San Leandro Creek, and portions of the Oakland Airport. Finally, the project supports 4) **responsive, trustworthy government** by utilizing equitable, effective intergovernmental partnerships among Oakland, Alameda, and the Port of Oakland to demonstrate progress on community priorities in frontline areas of Oakland.

The BRIC grant application from FEMA is intended to provide funding for the design and implementation of several key infrastructure improvements to protect Oakland communities and residents from the impacts of climate change, particularly in the increase in intensity and frequency of flooding associated with changing precipitation patterns (increased rainfall over shorter time periods) and rising ocean levels in the San Francisco and San Leandro Bays. Multiple climate models have identified increasing risks associated with increased flooding from these climate impacts. Most notably are the State of California summary of the best available science and policy recommendations on climate adaptation found in the State of California Sea-Level Rise Guidance: 2018 Update, recent studies on the impact of rising groundwater levels on localized flooding in Alameda County and surrounding areas, and a research paper assessing the potential for increased intensity of rainfall in the San Francisco Bay region associated with climate change.

These studies indicate a strong likelihood that low-lying areas in Oakland along the waterfront are likely to experience more frequent and intense flooding in future decades, placing homes, commercial and industrial buildings, schools, and infrastructure at risk of damage or destruction. The areas of impact extend across the City along the waterfront, with deeper penetration into inland areas at points of lower elevation, particularly in West Oakland and in portions of East Oakland near Elmhurst and Columbian Gardens. The City created a preliminary resilience assessment in 2016 to identify the potential for loss of such infrastructure and facilities, which formed the basis of the City's Sea Level Rise Road Map in 2018.

The Sea Level Rise Road Map, in addition to subsequent policy documents such as the ECAP and LHMP, identifies the need to isolate vulnerable infrastructure and neighborhoods and plan for improvements to reduce the risk of flooding for people and structures. The OAAC was formed in part to perform this analysis and coordinate among critical partners for both the Oakland and Alameda areas, as both are impacted by rising water levels in San Leandro Bay and the Oakland Estuary. In working with the local and regional agencies, community groups, and experts over the past three years, the OAAC has identified the areas with high risk of impacts and also the potential

for design solutions that can reduce risk and mitigate flood damages in its OAAC BRIC Technical Report (***Attachment A***). The result of that analysis is the set of projects that are under consideration for design and construction in the BRIC grant, and other discussed funding sources.

Focusing on coordinated projects that support both Oakland and Alameda, the initial phase of this work on the Oakland side is designed to protect critical areas of infrastructure surrounding the Airport, portions of Columbian Gardens and Elmhurst, and both green and gray infrastructure in these areas. Projects contained in the BRIC application include the design and construction of an enhanced trail along San Leandro Creek connecting San Leandro Park to the San Leandro Bay, raising and reconstructing Doolittle Drive/SR-61, providing flood control measures for the Oakland Airport North Field, and incorporating flood control into portions of the Columbian Gardens area. 53 homes would be removed from the 100-year Floodplain in Columbian Gardens, with significant additional benefit to surrounding areas not in the existing floodplain but subject to regular flooding during storm events. Additional structures at or adjacent to the Airport would also be removed from the floodplain. Estimating the total financial benefit to the City is difficult with existing data, as cost estimates for the replacement of structures and infrastructure have not been prepared. Based solely on tax assessments, the projected area of benefit from the projects would include benefits for more than $124 million worth of structures. The likely cost of replacement for these homes, industries, and businesses is significantly higher.

This work builds on several existing funded projects and multiple additional applications for funding to support sea level rise adaptation along the waterfront. The OAAC partnership has already secured approximately $3.25 million in funding to begin sea level rise analysis and design work for projects to reduce the risk of flooding from rising water and to build equity features to improve access to the waterfront for City of Alameda and East Oakland residents. These projects include the development of a comprehensive Adaptation Plan for the sub-region, concept design for improvements to protect the Webster and Posey Tubes from flooding, concept designs for the raising of Doolittle Drive/State Route 61, and community engagement activities to identify equity needs of impacted residents.

In September 2023, OAAC submitted a request to U.S. Senator Padilla's office to include authorization for $89 million in the 2024 Water Resources Development Act (WRDA) bill to advance the Oakland-Alameda Estuary Adaptation Project from the currently funded 10 percent design concept through 100 percent design, permitting, environmental clearance and construction on both the Oakland and Alameda sides of the Estuary. The next WRDA authorization bill is expected to be taken up in 2024, although no process for its consideration has been published by the Senate to date. The WRDA process requires two steps: authorization in a WRDA bill and then appropriation through the annual Energy and Water Development appropriations process, and at times, through supplemental appropriations. If the project is included in the 2024 WRDA and is authorized, OAAC and the cities of Oakland and Alameda will work collaboratively through these mechanisms to secure funding. The ultimate amount of funding could be lower than the $89 million request. If the bill passes in 2024, the first opportunity to request funding in an appropriation bill will be in the 2026 budget, and a 25 percent non-federal match will be required, which would be up to $22.2 million across all the entities (the City, Port of Oakland, and City of Alameda). Given the uncertainty around this request and the potential funding, staff would return to City Council with a separate authorization for this funding if and when it is included in the WRDA.

The BRIC program through FEMA is the second major portion of funding being targeted for these infrastructure improvements. The proposed application is for the maximum allowed under program requirements, totaling $56 million. This level of funding requires a non-federal match of $5.6 million

total across all three agencies (the City, Port of Oakland, and City of Alameda). The City's share of this match is $1 million, or approximately 18 percent of total match funds. The City of Alameda will provide $1.9 million (34 percent), and the Port of Oakland will provide $2.6 million (46 percent). The City of Alameda is expected to approve this item at a City Council meeting in February 2024, and the Port provided approval of funding commitment on January 23, 2024.

An additional financial issue is a requirement of the BRIC program that the City provide a Maintenance Commitment Letter (***Attachment B***) for the proposed infrastructure under local control. Proposed improvements at the Airport will be maintained by the Port of Oakland, while Doolittle Drive/SR-61 will be maintained by CalTrans. The City would be responsible for the maintenance of stormwater infrastructure and bio-retention facilities in East Oakland. Based on an estimate of 1.5 percent of construction costs, this would result in an annual cost of $118,451. The Maintenance Commitment Letter is a requirement of the application for the BRIC program and will be provided by the City of Alameda, Port of Oakland, and CalTrans as well.

The annual $118,451 cost would commence only upon a successful application to the BRIC program and full design and construction of the proposed improvements. Therefore, it would be required as part of the City Council's budget process in future years, but likely not before 2032. Actual costs for maintenance are likely to change over time as designs are finalized and with inflation, so the $118,451 is considered an estimate until more specific costs to be included in the City's budget are needed.

FISCAL IMPACT

The costs to the City for the project would be as follows:

- $1,000,000 match fund commitment for the BRIC program
- 50-year maintenance commitment for infrastructure at a level of $118,451 annually, for a total of $5,922,550

The project would provide external funding for needed physical improvements to the City, particularly in the flood control improvements along San Leandro Creek and Doolittle Drive. If both the WRDA and BRIC applications are successful, more than 90 percent of the total project cost would be covered by federal sources. In all, $35.5 million of the total BRIC funding, representing approximately 65 percent of the total grant, is proposed for physical improvements in Oakland.

The $1,000,000 in match funding will be provided by Fund 2244, Project 1007055, Org 30245. This funding is previously allocated in the Capital Improvement Program budget for related storm drainage work for improvements along Berndardt Drive. The annual maintenance commitment fulfillment will come in future budget cycles only after the project construction is complete, likely beginning in the early 2030s.

City staff anticipates that the dedicated match funding described above will be offset by state, regional, and local funding sources similarly dedicated to climate adaptation projects. The projects in this grant will likely be prioritized for Caltrans grant funding due to their impact on Caltrans SR-61/Doolittle Drive and the Posey/Webster Tubes (SR-260). As a result of developing the Oakland Alameda Sub-Regional Adaptation Plan, projects listed in this plan will be prioritized for state funding as required under SB 272. Potential funding opportunities include regional, state, and private grants such as Caltrans, the Wildlife Conservation Board, State Coastal Conservancy, California

Department of Fish and Wildlife, Ocean Protection Council, the San Francisco Bay Restoration Authority, Alameda County Transportation Commission, East Bay Regional Parks District, Wildlife Conservation Board, Bay Area Council Foundation, and private foundations with focus areas on climate change adaptation.

PUBLIC OUTREACH / INTEREST

Adapting to the impacts of sea level rise is a priority within the City's ECAP, and this proposal seeks to implement portions of two ECAP Action Items: A-3 (Fund and Implement Citywide Vulnerability Assessment and Comprehensive Adaptation Plan) and A-6 (Expand and Protect Green Infrastructure and Biodiversity). The ECAP included outreach and coordination with more than two dozen community-based organizations and more than 4,000 residents in creating the ECAP and its associated Racial Equity Impact Assessment and Implementation Guide. In addition to these engagement efforts, the OAAC has provided dozens of engagement points over the past two years with community-based organizations (CBOs) active in this field. Rather than engagement events, the structure of the OAAC is such that impacted community groups such as Sogorea' Te Land Trust, West Oakland Environmental Indicators Project, Ninth Root, and others participate directly in decision making and advisory subcommittees. These efforts have been crucial in selecting the projects, the refinement of equity considerations for frontline communities, and the assurance of procedural equity in the overall climate adaptation efforts of the City.

COORDINATION

Staff from the City Administrator's Office / Sustainability and Resilience Division coordinated in scoping the project and coordination with other agencies and key community groups. Additional input into the design of projects, equity and economic considerations, and other issues was provided by Oakland Public Works, Oakland Department of Transportation, Economic and Workforce Development, and the Emergency Management and Services Division of the Oakland Fire Department.

SUSTAINABLE OPPORTUNITIES

Economic: Approval of this proposed Resolution will allow City staff to apply for grant funding to design and implement needed infrastructure improvements along San Leandro Creek, Doolittle Drive, Airport North Field, and surrounding areas. Of the estimated total project cost of $181 million (including Bay Farm Island improvements in the City of Alameda), existing and sought grant funding would cover up to $142.25 million of the total cost. The remaining amounts would be covered by additional future grant applications, in addition to local match funds required for the federal grants. The estimated amount required by the City would be $1 million for the FEMA BRIC grant, with larger shares provided by the City of Alameda ($1.9 million) and the Port of Oakland ($2.6 million).

Environmental: Design and construction of these improvements will reduce the risk of flooding from both sea level rise and from changes in precipitation patterns already occurring in Oakland. The impacted areas in East Oakland, consisting primarily of the Columbian Gardens neighborhood, homes and businesses adjacent to San Leandro Creek and Doolittle Drive, and

portions of the Airport, are areas that are identified as high-priority areas for equity investment in both the ECAP and CalEnviroScreen 4.0. The projects contained in this approval would represent the largest investment in climate adaptation to date in Oakland, furthering the implementation of the ECAP and providing a net positive impact on local environmental conditions.

***Race & Equity**:* This project constitutes an important step in climate justice as it provided substantial public investment in protecting low-income black and brown communities in East Oakland. The full benefit zone of the project is located within Priority Communities as described by the City's Geographic Equity Toolbox. These improvements will remove residential properties from the 100-year floodplain, reducing insurance and flood repair/recovery costs, and helping existing residents remain rooted in the community. Each of these actions is consistent with the racial equity priorities identified for this action in the Racial Equity Impact Assessment and Implementation Guide for the City's ECAP.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

Adoption of the proposed Resolution is not a project under the California Environmental Quality Act (CEQA).

ACTION REQUESTED OF THE CITY COUNCIL

Staff recommends that the city council adopt a resolution:

1) Authorizing the City Administrator to submit a grant application to the Federal Emergency Management Agency (FEMA grant) for the Building Resilient Infrastructure and Communities program for a grant up to fifty-six million dollars ($56,000,000), and authorizing the commitment of the required non-federal match of one million dollars ($1,000,000) and annual maintenance commitment letter for one hundred eighteen thousand four hundred fifty one dollars ($118,451) from Measure U funds for flooding and sea level rise adaptation projects along San Leandro Creek, Doolittle Drive, and Oakland Airport North Field;

2) Authorizing the City Administrator to accept and appropriate the FEMA grant, if awarded, in an amount up to fifty-six million dollars ($56,000,000);

3) Authorizing the City Administrator to apply for, accept, and appropriate required non-federal match funds from state, regional, and local sources, both public and private, in an amount not to exceed one million dollars ($1,000,000) in lieu of Measure U funds, as an additional or alternative source of match funds; and

4) Making appropriate California Environmental Quality Act findings.

For questions regarding this report, please contact Daniel Hamilton, Sustainability and Resilience Director, at (510) 238-6179.

Respectfully submitted,

Joe DeVries

Joe DeVries
Chief Resilience Officer & Deputy City Administrator

Prepared by:
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Attachments:

A. OACC BRIC Technical Report
B. Maintenance Commitment Letter