



File #: 17-0804, Version: 1

2018 COUNCIL STUDY ISSUE

Proposed Study Issue: Identification of Climate Change Adaptation Priorities for Sunnyvale

BACKGROUND

Lead Department: [full name, no acronyms]

Support Department(s): [full name, no acronyms or list as N/A]

Sponsor(s):

Board/Commission: Sustainability Commission

History:

1 year ago: [Dropped/Deferred/N/A]

2 years ago: [Dropped/Deferred/N/A]

SCOPE OF THE STUDY

What are the key elements of the study?

This study focuses on evaluating and communicating risks and vulnerabilities identified in studies conducted by regional and external groups such as BCDC, Silicon Valley 2.0, and the Union of Concerned Scientists. The study would identify specific risks to Sunnyvale, and specific locations and issues of special concern. This risk assessment would be evaluated in terms of recent scientific data indicating increased probabilities of risks from the combined effects of sea level rise and increasing frequency of extreme rainfall events.

Although extensive regional studies have been conducted, little communication has reached Sunnyvale commissions or the public about the nature and probability of risks associated with climate change induced risks.

This study explicitly excludes planning for and implementation of any proposed mitigation projects. Regional efforts such as BCDC and Silicon Valley 2.0 have explored possibilities for regional coordination to undertake efforts such as maintenance of existing levees, reconstruction of wetlands, and other infrastructure responses. This study explicitly excludes efforts that would duplicate work done under those regional efforts. This study would focus on clearly identifying and communicating risks specific to Sunnyvale from data collection and modeling already conducted in those regional efforts.

What precipitated this study?

Sunnyvale has played a strong leadership role in climate change prevention, through efforts such as creation of Silicon Valley Clean Energy, active efforts to promote Zero Net Energy and LEED Platinum buildings, and active efforts to reduce greenhouse gas emissions throughout the city. The Climate Action Plan and other city efforts have paid significantly less attention to climate change adaptation, that is, to address risks triggered by climate changes that appear to be under way

already.

Evidence is emerging that the effects of climate change are already occurring, and may be occurring more quickly than previously predicted. The state of California, for example, has recently revised estimates of sea level rise expected by 2050 and 2100. While certainty is impossible, the probability of more extreme events is now considered higher than previous predictions. In particular, separate predictions of increasing precipitation events, and increasing levels of sea level rise, raise the possibility of increased risk to citizens and businesses in Sunnyvale.

Recent flooding in San Jose during an unusual storm event illustrates the high cost of inadequate preparation for low-probability events. Sunnyvale is fortunate to have significantly less of its geographic area near or below sea level than nearby communities such as Alviso. However, significant areas of the city are located within designated 100-year flood plain areas. As a result, a preliminary assessment of risks can help the council and city departments evaluate whether existing adaptation and emergency procedures are adequate in light of new information on effects of climate change.

Bay Area communities including Mountain View and Palo Alto have conducted assessments of vulnerability to facilities, transportation corridors and other infrastructure. Those efforts have identified specific risks to regions and facilities in those cities. Although departments of Sunnyvale city government routinely assess know areas of emerging risk, little information about those risks has been communicated to city commissions or the public. This study would generate preliminary assessments of risks based on existing studies and allow the City Council to evaluate whether additional and more extensive assessment is required.

Planned Completion Year: 2019

FISCAL IMPACT

Cost to Conduct Study

Level of staff effort required (opportunity cost): [Major/Moderate/Minor]

Amount of funding above current budget required: \$ [or enter \$0 if total expected funding is \$0]

Funding Source: [(select one) Will seek budget supplement or Will seek grant funding]

Explanation of Cost:

[Briefly explain the cost of study; including impact or workload and how any additional dollars will be used. Describe the level of complexity that will be required in order to complete a thorough, professional examination of the study issue and any effect this examination may have on existing workload and service level responsibilities.]

Cost to Implement Study Results

[(Select one) "No cost to implement.", "Unknown. Study would include assessment of potential costs.", "Some cost to implement."]

Explanation of Cost: [If there is some cost to implement, briefly explain potential costs of implementing study results. Note estimated capital and operating costs, as well as revenue/savings, include dollar amounts. If there is no cost to implement, delete this section.]

EXPECTED PARTICIPATION IN THE PROCESS

Council-approved work plan: [Yes/No]

Council Study Session: [Yes/No]

Reviewed by Boards/Commissions: [identify the B/Cs, full name, no acronyms]

STAFF RECOMMENDATION

Position: [Support/Drop/Defer/None]

Explanation: [Explain the staff recommendation position.]

[If additional departments support this paper, include those who need to review below and add to Legistar ATS sequence.]

Prepared By: [Name], [Title]

Reviewed By: [Name], Director, [Department]

Reviewed By: Walter C. Rossmann, Assistant City Manager [or] Walter C. Rossmann, Assistant City Manager

Approved By: Deanna J. Santana, City Manager