

**Thursday, February 7, 2019**

**Agenda Item 6.1**

POLICY ON ADAPTING DESIGN  
STANDARDS FOR THE  
MOSSDALE TRACT AREA  
IN LIGHT OF CLIMATE CHANGE



## THE CHALLENGE

- The Community will soon invest hundreds of millions of dollars in a project to protect Mossdale Tract from a future flood.
- Climate Change is predicted to affect known hydrologic conditions.
- We do not yet have a reliable means to predict future conditions.
- We need to make decisions now.

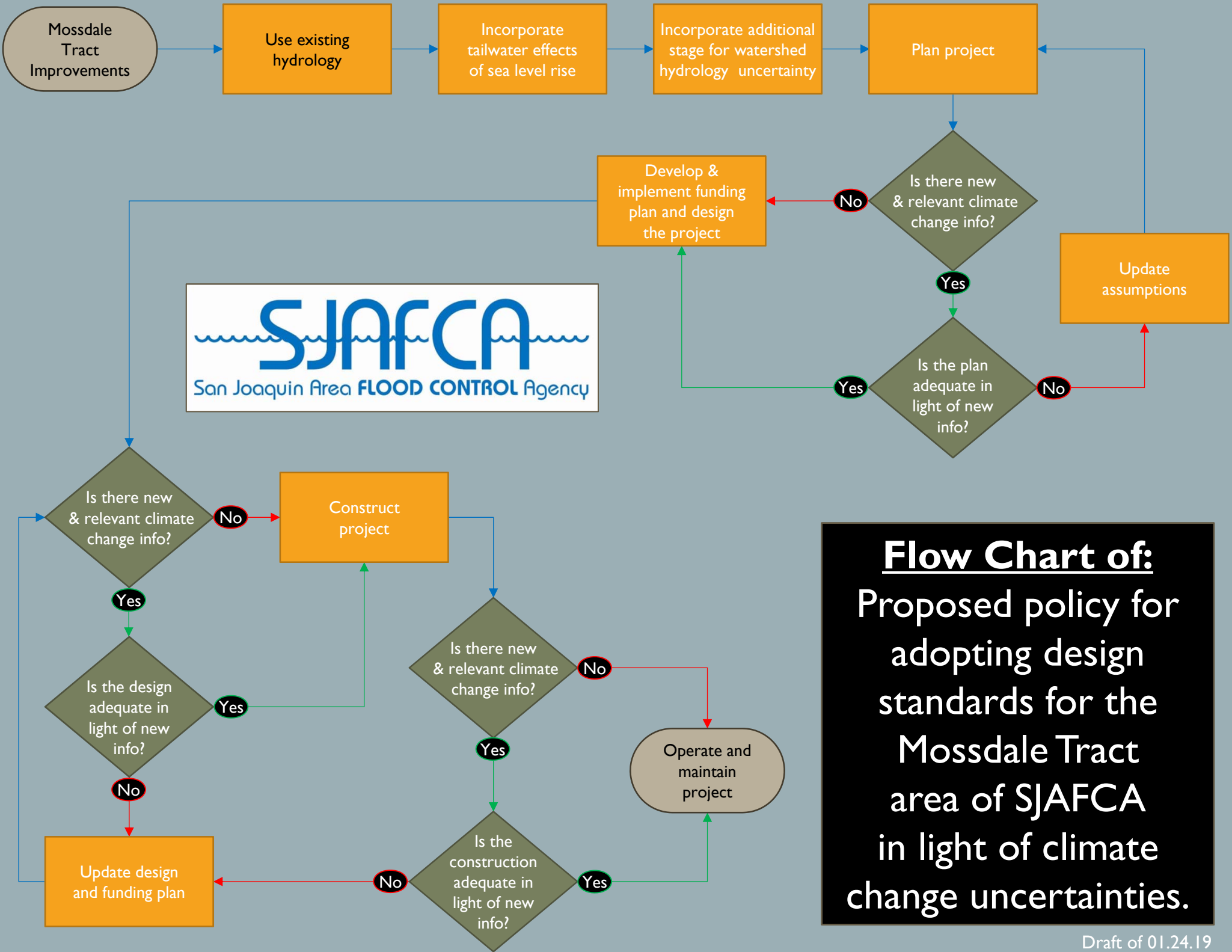
## OUR ASSUMPTIONS

- Climate Change is a real phenomenon.
- A scientific consensus is developing around a range of future sea level rise scenarios.
- We can model that range of futures for our project.
- DWR's modeling of watershed hydrology shows there will be changes in river flows, but the modeling was not supported for making economic decisions.

## OUR PROPOSED SOLUTION

As with other agencies, we will:

- Work with the best information we have;
- Bake in some additional level of conservatism for flows and stages;
- Design a financial model and structure real estate transactions so as to reduce transaction costs from future changes; and
- Revisit the project when more reliable information surfaces.



**Flow Chart of:**  
**Proposed policy for**  
**adopting design**  
**standards for the**  
**Mosssdale Tract**  
**area of SJAFCOA**  
**in light of climate**  
**change**  
**uncertainties.**

## ELEMENTS OF THE POLICY

1. Incorporation of additional stage at the downstream boundary of the San Joaquin River hydraulic model to cover “intermediate” estimates of sea level rise per USACE guidance, plus an additional factor for uncertainty;
2. The inclusion of some additional measure of stage in levee design. This additional stage will differ in different reaches to be determined by SJAFCA staff based upon input from consultants and partner agencies, but is expected to be in the zero to three foot range;
3. Where real estate is being acquired for project improvements (and where land use coordination as described below is not adequate), SJAFCA will acquire the necessary real estate to support potential future levee raises and/or extensions based on the 2017 CVFPP climate change hydrology;

## ELEMENTS OF THE POLICY (CONTINUED)

4. Coordination with relevant land-use agencies in and around current and future levee alignments to ensure approved new development can accommodate expanded levee footprints and extended levee alignments;
5. At least every three years, and more often when the state of the science demands, staff shall review available studies and models and make recommendations to the Board whether this policy needs to be updated.
6. SJAFCA will request that each land use agency within the Mossdale Tract annually provide to SJAFCA a summary of any findings made toward adequate progress;
7. SJAFCA will develop cost estimates to provide SJAFCA with necessary resources to further study and evaluate this issue through and after project completion.

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