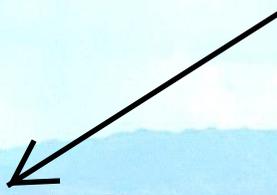


**Proposed Town Site: Location #3 - Base of mountains.**



**Proposed Town Site: Location #2**



**Proposed Town Site: Location #1**



# Building in the Floodplain

## Pro

- Flat building surface
- Scenic views
- Easy access to river
- Fertile soil
- Ease of transporting water
- Livelihood activities in fisheries and agriculture

## Con

- Chance of flooding
- Economic and emotional impacts
- Temporary or permanent:
  - Loss of home and contents
  - Business closure with loss of income
  - Sense of property violation
  - Fear
  - Injury or death

# Views

## Location 1

I think we should build at Location #1. There is an existing levee protecting the site from the river, property values are low, and we won't have to pay high prices to get water into our homes. The soil is excellent for farming and there is plenty of water for the production needs of other businesses that will provide jobs for our new community. The site is within the 100-year floodplain but is 10 – 15 feet higher than the surrounding topography. The surrounding fields have flooded 5 times in high water events since 1940, but the proposed town site did not.

New engineering techniques used in development of the town will include a system of siphons and pipes will rely on water hydraulics to control water levels during storms, high river flows and times of drought minimizing the need for energy. Typically, in California urbanization of an acre of farmland sees no net change in water consumption; our new town will use 2/3 less by taking advantage of the naturally high-water table and recycled water from a new wastewater treatment plant to irrigate town landscaping and nearby farm fields. In addition, floodplain management funds or subsidies are available for non-structural flood management measures.

## Location 2

Well, just because a flood hasn't happened since 1940 doesn't mean that it won't – and according to water managers there are only two types of levees – those that have failed, and those that will fail! To me, location #1 is too much of a gamble for building a new town. We can get more security by building at Location #2 within the 500-year floodplain. We'll have to pay a little more in property taxes and to get water, but the site far less likely to flood based on current data and still has good soils for farming. It is also close to the richer soils around location #1 than Location #3, so a farmer or others working around Location #1 would have the added security for their home at location #2 with a much shorter drive than from location #3.

Our town would have to use groundwater and/or develop a system to bring water from the river, but we won't need a fancy (and expensive sounding) system to control flood waters during storms as proposed for location #1. We too will engineer our new town to use recycled water from a new wastewater treatment plant to irrigate town landscaping and nearby farm fields. In addition, floodplain management funds are still available at location #2 for non-structural flood management measures. Though our deeper aquifer provides location #2 far more security in the event of a severe, multi-year drought - we will apply for funds to develop a strategy or systems to enhance recharge of our groundwater aquifer.

### **Location 3**

Building a new town anywhere in the known floodplain is insane – The whole area *was* flooded during the winter of 1861-62. It is estimated location #1 was under 40 feet of water and ranchers in the area of location #2 at the time wrote about losing livestock to flood waters. The 1861-62 flood is considered a 1,000-year event, but the changing climate is expected to create wilder extremes in weather that will likely shorten the interval for *all* of the flood events we are talking about. There is also research indicating flood events worse than 1861-62 occurred before recorded history in the valley – an 'ARkStorm' event would inundate all locations in the floodplain.

Even though we'll have to pay more, I think we should build above the floodplain near the base of the hills where the land is still flat and below the brushy slopes above where fire would be a greater risk. We will have to invest more to pump groundwater and/or getting surface water to our community, but our homes will be less expensive because we won't have to pay flood insurance. The proposed town will also reuse water from a new waste treatment plant to water the landscape and will use the most affordable water use efficiency and energy production technology available.