



## Land Use & Natural Resource Committee

May 29, 2014

### Floodplains and Levee Improvements Update

**Issue:** What are the regulatory constraints regarding future land development in levee-protected areas in the six-county region?

**Recommendation:** This is for information only.

**Discussion:** SACOG staff is reviewing regulatory constraints that may impact future development within the 2016 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) update. This item addresses the status of flood protection and local governments' abilities to meet federal and state requirements before development may occur. The Federal Emergency Management Agency (FEMA) requires that urban areas must have flood protection levels to withstand a 100-year flood level. California's SB 5 requires 200-year flood protection for urban areas and 100-year flood protection for rural areas.

SACOG contacted each local jurisdiction subject to these FEMA and SB 5 requirements and asked if and when they estimate their jurisdictions would be able to meet the requirements. Every jurisdiction has a plan in place or is part of a regional plan to identify where their levees need improvements. Some have secured funding to construct the improvements and others are in construction or have completed construction. Currently, Congress is reviewing the Water Resources Development Act (WRDA). If enacted, WRDA would provide funding for the completion of levee improvements in the Natomas Basin, and would ultimately remove the current de facto building moratorium in that basin for Sutter County, Yolo County and Sacramento County, City of Sacramento. In terms of impact to the 2016 MTP/SCS update, the timing for funding and construction of levee improvements is one of the factors that would influence the timing of development within floodplain areas in the short to mid term.

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## Sacramento Region Floodplain Status Report

(May 27, 2014)

## BACKGROUND

Since the 2008 MTP/SCS, SACOG has included a floodplain status report for the land use plan that underpins each MTP/SCS. This is an update to the most recent report, which was developed in 2010 for the 2012 MTP/SCS.

Since the 2010 update, the most significant development is the adoption of the Central Valley Flood Protection Plan (CVFPP) by the Central Valley Flood Protection Board (CVFP Board). The CVFPP fulfills the requirements of the Central Valley Flood Protection Act of 2008 (Senate Bill 5, 2007). The California Water Code also requires updates to the CVFPP every five years beginning in 2017.

In addition, Senate Bill 5 and subsequent legislation (Senate Bill 1278, 2012) require cities and counties in the Sacramento-San Joaquin Valley to have a 200-year level of flood protection for urban areas and a 100-year level of protection in rural areas. These laws also require the California Department of Water Resources (DWR) to produce floodplain maps, which cities and counties must use in making their findings. Flood protection plans and general plans must be consistent with the CVFPP, and flood protection improvement milestones must be met in order for development to occur. Those milestones include: a general plan amendment by July 2015 to include data and analysis contained in the CVFPP; locations of flood hazards; goals, policies and objectives for the protection of lives and property that will reduce the risk of flood damage; and feasible implementation measures. Within 12 months after the amendment of its general plan, each city and county is to amend its zoning ordinance.

Some local governments do not feel adequately prepared to comply with these laws because preliminary mapping from DWR, which serves as the basis for each city and county to make findings about their ability to meet the requisite flood protection levels, is incomplete. Pending legislation, AB 2108 (Eggman) would allow cities and counties to issue permits in areas that do not meet the required 200-year level of flood protection as long as the new structure or remodel does not increase occupancy by more than 50 percent. AB 2108 would also allow cities and counties that are making adequate progress in pre-construction planning and designing of flood system improvements to continue issuing development agreements, permits, and tentative maps if the city or county has demonstrated to the satisfaction of the CVFP Board that it is on its way to constructing improvements that will meet the 200-year level of flood protection for the areas where the new construction would occur.

From a funding standpoint, there is some uncertainty about the timing and frequency of additional reauthorizations of the federal Water Resources Development Act (WRDA). Since the 2012 MTP/SCS was adopted, Congress instituted a moratorium on earmarks, which essentially forestalled the passage of a

WRDA reauthorization, the federal funding mechanism for levees and other flood protection projects. Both houses of Congress have passed a WRDA reauthorization that is pending as of this writing. If enacted, reauthorization would provide \$689 million for the Sutter Basin and \$1 billion for Natomas levee projects and studies. Regular reauthorizations of WRDA would help continue to ensure that the region meets its flood protection requirements. At the state level, there is some funding available from prior bond measures, but regions must put together investment plans in order to access those funds. Investment plans are currently under development.

The passage of H.R. 3370 (Homeowners Flood Insurance Affordability Act of 2014) protects property owners from skyrocketing flood insurance rate increases. H.R. 3370 provides a four-year reprieve to dramatic increases in insurance rates for property owners. It also reinstates a grandfathering process for existing property owners who are mapped into risk areas, which helps cap how much insurance premiums can increase in a year.

Looking ahead to the period between now and the 2036 horizon year of the 2016 MTP/SCS, several factors may impact floodplains. First, recalculation of flood events (i.e., the likelihood of a flood occurring in any given year) may change, and FEMA may remap floodplain areas. This may help or harm jurisdictions, depending on the local conditions. Second, National Flood Insurance Program changes may increase the costs of development indirectly. Federal law enacted in 2012 required a phase-out of subsidized flood insurance, but the President enacted legislation to delay implementation in early 2014. Third, changes in hydrology will impact floodplain management, as many flood management systems, such as Folsom Dam, are also operated for water supply.

As discussed below, many jurisdictions continue to plan and construct levees and other improvements to meet state and federal requirements. In many cases, jurisdictions believe that their floodplain management efforts and improvement schedules will result in very little or no effect on growth forecasts and development in the floodplain as envisioned by the 2016 MTP/SCS, notwithstanding recent declines in the building industry. Some jurisdictions are more challenged to meet federal and state requirements due to levee conditions, hydrology, or funding shortfalls. Specific status reports, written with the help of local jurisdictions, are provided below.

## **SACRAMENTO COUNTY**

### Levee Status

The Sacramento Area Flood Control Agency (SAFCA) is managing the levee construction and certification project in the Natomas Basin for Sacramento County, the City of Sacramento, and Sutter County. The Natomas Basin levees are undergoing a major upgrade and are currently halfway complete.

The levees along both the Sacramento River and the American River were de-certified by FEMA in 2013. Re-certification of the American River levees will depend on programs associated with the Folsom Dam

Joint Federal Project and various levee improvements. The Folsom Dam Joint Federal Project (JFP) is currently under construction and completion is estimated for 2020. The Folsom Dam JFP will allow more efficient operation of the dam and allow the operators to manage larger flood events downstream so that levees downstream are not overwhelmed.

#### State and Federal Compliance Status

The Natomas area continues to be at risk of 100-year flooding and does not meet the 200-year flood protection requirements of California's DWR.

#### MTP/SCS 2036 Implementation

Development in the Natomas Basin depends on passage of WRDA, subsequent appropriations for levee improvements, and completion of the associated levee improvements. Once adequate progress is demonstrated, FEMA may change the flood designation from Zone "AE" to the less restrictive Zone "A99" designation. The current "AE" designation has caused a de facto building moratorium in Natomas given the restriction that structures must be elevated or flood-proof to a base elevation of 33 feet.

### **City of Sacramento**

#### Levee Status

The City of Sacramento's levees along the Natomas Basin are under improvement and are about halfway completed. Federal funding for completing the levee work and compliance with FEMA's 100-year flood requirements and DWR, is dependent on enactment of a WRDA reauthorization, subsequent appropriations for levee improvements, and completion of the associated levee improvements. Once adequate progress is demonstrated, FEMA may change the area's flood zone designation.

In 2012 and 2013, the USACE levee certification expired along the Sacramento River, American River and North Streams. In order to re-certify, improvements to the levees are expected to take between 5-7 years, including those to the Natomas Basin described above.

The Folsom Dam Joint Federal Project (JFP) is currently under construction and completion is estimated for 2020. The Folsom Dam JFP will allow more efficient operation of the dam and allow the operators to manager larger flood events downstream so that levees downstream are not overwhelmed.

Because of many flood control projects in the South Sacramento Streams Groups (Morrison Creek area), over 3,000 structures were removed from the A99 zone as of May 12, 2014. This means that flood insurance will no longer be required and will be available at a lower rate. A widening and detention basis project along Florin Creek will be constructed in 2015, which will remove an additional 500 structures from the A99 zone.

### State and Federal Compliance Status

Once these levee improvements are made, the City should be able to demonstrate compliance with state and federal requirements. The remainder of the City of Sacramento is designated Zone “X”, meaning there are no building restrictions except for some floodplains created by Magpie Creek/Dry Creek (designated Zone “AE”), Arcade Creek (designated Zone “AE” and “AH”), and Florin Creek, designated Zone “AH”.

SB 5/SB 1278 require the city to have 200-year level of protection by July 2016 in order to allow development. However, having a plan in place to reach the 200-year level of protection by July 2016 will delay the 200-year level requirement until 2025 if the city can show annual progress. The city is in the process of developing a plan.

### MTP/SCS 2036 Implementation

Almost all of the Delta Shores project area is located in Zone “X”, which means that the area is protected by levees. The portions of the project currently located in Zone “AE” will likely be redesignated to Zone “X” once the development’s infrastructure has been planned.

## **City of Isleton**

### Levee Status

The city has levees along Georgina Slough and along the Sacramento River that will need to be improved to meet 100-year FEMA flood level requirements for participation in the National Flood Insurance Program. The ground elevation of Isleton ranges from approximately 0 feet, or sea level, up to 4 feet above sea level. The FEMA base elevation is 9 feet. New development in the city is required to be built at base level elevations. However, the city is not subject to SB 5 requirements because it has fewer than 10,000 residents.

### State and Federal Compliance Status

As part of the Delta area, the city is included in the Central Valley Flood Protection Plan (CVFPP). The CVFPP is a comprehensive framework for systemwide flood management and flood risk reduction in the Sacramento and San Joaquin River Basins. The adoption of the CVFPP provides conceptual guidance to reduce the risk of flooding for about one million people and \$70 billion in infrastructure, homes and businesses, with a goal of providing 200-year protection to urban areas, and reducing flood risks to small communities and rural agricultural lands.

The city, as part of the CVFPP, continues to participate in the improvement of its levees. However, there is no clear schedule that indicates when the CVFPP will be implemented that will meet the requirements placed on the city.

### MTP/SCS 2036 Implementation

Any new development in the city must be built at base level elevations, which would effectively require new residential units to have a second floor main entrance. Some housing units were built this way in the prior decade, but there is no clear indication additional units will be built this way in the future.

### **SUTTER COUNTY**

The levees in Sutter County have not been certified as providing a 100-year level of protection due to underseepage issues along the Sacramento River, Feather River Sutter Bypass, Natomas Cross Canal, East Main Drain, Bear River and Yankee Slough. Levees along the west bank of the Feather River have been studied extensively, as has the south bank of the Natomas Cross Canal.

The Feather River Levee Improvement Project managed by the Sutter Butte Flood Control Agency is constructing 44 miles of levee improvements from Thermalito Bay to the Sutter Bypass along the Feather River. The improvements are scheduled to be completed in 2015. These levee improvements are being paid for by a combination of a voter-approved special assessment through a Proposition 218 process and resources from DWR and the USACE.

All of the lands within the city limits of Yuba City and within the city of Live Oak and its Sphere of Influence are protected by these improvements. The only urban area not covered is a portion of Yuba City's Sphere of Influence, discussed in the Yuba City section below.

The areas south of Yuba City in the Yuba City/Live Oak Basin, and most of the area within the Nicolaus Sub-basin fall into Special Flood Hazard Area Zone A (including zones AO and AH). In addition, lands within the Meridian and Robbins Basins are likely to be remapped by FEMA from Zone X currently to Zone A. Sutter County is required to enforce minimum National Flood Insurance Program (NFIP) standards, such as mandating that the first floor of new or substantially improved buildings be at or above base flood elevations.

The Natomas Basin Area within Sutter County is also located in Zone AE, and new buildings must be at or above base flood elevations. As discussed in the City of Sacramento section below, substantial improvements have been made and, if the Water Resources Development Act is passed at the federal level and funding for the remaining improvements are secured, it is expected that this designation will be removed with remapping and development will continue once again.

### State and Federal Compliance Status

For the existing county urbanized areas surrounding the cities of Live Oak and Yuba County, FEMA requirements have been met and SB 5 200-year requirements are very likely to have been met with the improvements along the west bank of the Feather River. The county's portion of the Natomas Basin will likely meet FEMA and SB 5 requirements upon the approval of WRDA.

The non-urbanized areas in the Meridian Basin, Robbins Basin, Nicolaus Basin and south half of the Yuba City/Live Oak Basins will not be compliant with FEMA or SB 5 requirements. Until significant levee improvements are made to the Sutter Bypass, which have neither been analyzed nor engineered, these areas will continue to remain in some version of Zone A.

#### MTP/SCS 2036 Implementation

Sutter Pointe Specific Plan in the Natomas Basin is the only long-term residential urban development planned in the unincorporated county. The other affected projects are likely to be agricultural-related developments such as farm product processing units and silos and will have to be built at base flood elevations that are likely infeasible in many parts of the county.

### **City of Live Oak**

#### Levee Status

Only a small portion of the city's downtown is within a flood zone. Live Oak is part of a group of jurisdictions for the Feather River Levee Improvement Project, managed by the Sutter Butte Flood Control Agency, which is constructing 44 miles of levee improvements from Thermalito Bay to the Sutter Bypass along the Feather River. The improvements are scheduled to be completed in 2015.

Because plans for the improvements are in place and funding has been secured, FEMA's map designation officially changed effective May 13, 2014 and now all lands within the city will be outside of a flood zone.

#### Federal and State Compliance

The improvements along the Feather River that are being constructed have met FEMA's requirements, and is expected to meet the State's 200-year level requirements as well.

#### MTP/SCS 2036 Implementation

FEMA and State flood protection requirements are not an obstacle to any future development within the city.

### **The City of Yuba City**

#### Levee Status

DWR shows most of the city's lands within a floodplain and if FEMA were to remap the city, it would likely have lands within floodplains. However, like the city of Live Oak, Yuba City is part of the Feather River Levee Improvement Project managed by the Sutter Butte Flood Control Agency. This project is constructing 44 miles of levee improvements from Thermalito Bay to the Sutter Bypass along the west bank of the Feather River.

### State and Federal Compliance Status

The city is expected to meet FEMA requirements for 100-year flood protection and SB 5 compliance for 200-year requirements, due to the completion of the Feather River West Levee Improvement Project. The one exception is the southwest portion of the city's Sphere of Influence near Bogue Road and Township Road. The city will re-examine how to address this area after the Feather River Levee Improvements project is completed.

### MTP/SCS 2036 Implementation

With the exception of the southwest portion of the city's Sphere of Influence (SOI), the lands within the city's boundaries and SOI will have no flood impediments to development.

## **YOLO COUNTY**

Unincorporated areas of Knights Landing, Clarksburg and Yolo

### Levee status

Over the last decade, FEMA has made changes to re-define regional flood hazard areas. The Cache Creek levees were de-certified in 2002, placing portions of the City of Woodland in the 100-year floodplain. Similarly, the levees protecting the unincorporated towns of Knights Landing, Yolo and Clarksburg were de-certified in 2010, and all three towns were remapped into the 100-year floodplain. Yolo County is requesting that the Clarksburg community receive a changed classification to FEMA Zone "D", which is for unstudied areas where flood hazards are possible but undetermined. Communities with Zone "D" designation are free from mandatory flood insurance purchase requirements.

The Lower Sacramento and Delta North Regional Flood Management Plan is identifying regional flood management solutions. Part of this work includes researching alternatives for providing 100-year flood protection for Knights Landing and the town of Yolo. Alternatives include strengthening existing levees in place or a smaller ring levee system. The management plan has also spurred coordination between local agencies regarding the Yolo Bypass and Fremont Weir Wildlife Area. There is consensus for the development of a Yolo Bypass/Cache Slough Integrated Water Management Plan, but funding has not yet been secured.

### State and Federal Compliance Status

As mentioned above, the unincorporated towns of Knights Landing, Yolo and Clarksburg are subject to FEMA's 100-year flood level requirements but are not subject to California's SB 5 requirements because they are communities under 10,000 residents. To meet the FEMA requirements, these communities are participating in the Lower Sacramento and Delta North Regional Flood Management Plan, which is the regional plan to address flood management solutions for the area that includes these Yolo County communities.

Knights Landing needs a funding solution to finish repairs for the Mid-Valley Area Levee Reconstruction Project. The project has an estimated total cost of \$7 million (85% federal/15% local split), but the benefit-cost ratio is being recalculated. The levees around Clarksburg last failed in 1918, but the system is incomplete. There are not secured funds identified for these improvements. Levee improvements needed to protect the community of Yolo have also not been secured. The management plan does not have funding for full implementation, and Yolo County is seeking ways to fund the improvements needed for its communities.

#### MTP/SCS 2036 Implementation

The three unincorporated communities within the 100-year floodplain have very limited projected growth potential. Floodplain regulations will likely affect agricultural operations and facilities more than residential development.

#### **City of Woodland**

##### Levee status

The Cache Creek levees were designed to provide the City of Woodland with a 10-year level of protection, but don't generally overtop until a 25-year or greater event occurs. There are currently no improvements in place to upgrade the levees above a 10-30 year level.

The Cache Creek Settling Basin and Yolo Bypass levees were de-certified by FEMA in 2009. This makes Interstate 5 on the south bank of Cache Creek vulnerable. It is estimated that the interstate would be shut down for one to three months east of Woodland and twenty hours north of Woodland if a 25-year or larger flood hits the area. The City, DWR, and USACE are exploring infrastructure and legislative solutions to interstate flooding issues.

##### State and Federal Compliance Status

The 100-year floodplain covers almost a third of the city of Woodland. Flood depths from a 100-year event are generally expected to be between 2-3 feet, but may reach up to 12 feet in some areas. The City is currently subject to FEMA's Zone "AE" designation and will be until the levees meet new 100-year level of protection criteria.

A unique issue for Woodland is that all of the levees that affect the city's flood problem are outside the city's jurisdiction. The city can only work with agencies with actual jurisdiction towards a solution. How this will affect the mandates required by state law remains to be determined.

##### MTP/SCS 2036 Implementation

None of the City's planned new residential areas within city limits and the Sphere of Influence are within the 100-year floodplain. However, the City is planning for infill projects and new industrial development areas in the floodplain. For industrial development areas, elevated docking stations provide flood

protection and comply with FEMA's Zone "AE" designation, which requires new development to be built at base flood elevation.

## **City of West Sacramento**

### Levee Status

West Sacramento has FEMA 100-year certification and an aggressive levee improvement program. The city has completed levee evaluations using current levee design guidelines and has identified deficiencies based on federal standards. The city's levee improvement program is designed ultimately to provide a 200-year level of protection. A six-mile improvement project along the Sacramento River will begin construction in 2016 and be finished by 2017. The project currently has EIR certification and is 90 percent complete with the design. The city estimates that the total cost to construct all needed levee improvements is between \$500 million and \$600 million.

### State and Federal Compliance Status

Currently, the city projects meeting the 200-year level of protection by 2020. If FEMA were to remap this area it is anticipated that it would designate multiple flood zones within the city due to the complexities of the city's geography and hydrology. However, there are no signs that FEMA will remap the area in the near future. West Sacramento is leading a regional and even national effort to revise FEMA's flood zone designation criteria to more accurately reflect current conditions. Proposed regulatory changes to flood zone designations may help the city qualify for AR and/or A99 zones and further levee improvements.

### MTP/SCS 2036 Implementation

Almost all of the land within current city limits is designated as Zone "X", which allows development to occur because of its levee protection. However, greenfield development in the Southport area could face flood-related regulatory obstacles if the area is remapped. Although the city maintains an aggressive levee improvement program and responsible land use policies, current federal regulatory conditions could delay growth allocations in the MTP/SCS update. Given current FEMA policies, final maps with an AE designation for the city could create a de facto building moratorium. With the evaluation of the levees for a 200-year event, and assuming that an improvement plan is completed by 2020 and continued progress is made on proposed regulatory changes to federal flood zone designations, the city believes that flood concerns could have variable but limited effect on the MTP/SCS allocations.

## **City of Winters**

### Levee Status

The FEMA FIRM shows the majority of the northeast area of town is within the 100-year flood plain, with a portion within the city limits and within its Sphere of Influence. This area is within the Moody

Slough sub-basin, and drainage facilities identified in the Moody Slough Sub-Basin Drainage would be implemented for the area to develop. The drainage facilities include a series of proposed canals, and levees, pipes, open channels, and detention ponds.

#### State and Federal Compliance Status

The city is not subject to State SB 5 requirements because it does not meet the definition of an urban area that exceeds 10,000 residents.

The portion of the city within the FEMA floodplain would be subject to FEMA 100-year floodplain. The city has proposed a series of canals, levees and other facilities to address this.

#### MTP/SCS 2036 Implementation

A portion of land affected by 100-year flood levels is within the city limits and within the urban limit line. At this time, the city nor the property owners have plans to annex additional land into the city limits in the foreseeable future and therefore it should not be assumed as part of the city's growth within the MTP/SCS.

### **YUBA COUNTY**

Plumas Lakes, Linda, Olivehurst and Magnolia

#### Levee Status

The South Yuba County Basin (Reclamation District 784) consists of 29 miles of levees along the Yuba River, Feather River, Bear River, and the Western Pacific Interceptor Canal. The last four miles of levee construction along the Yuba River were completed in 2012.

In 2010, the U.S. Army Corp of Engineers conducted a feasibility study that looked specifically at the Yuba River's Goldfields area. The study found that these embankments—which had been realigned to prevent clogging and sediment deposits from mining practices during the 1900s—had eroded and would be breached by a 200-year storm.

The Three Rivers Levee Improvement Authority (TRLIA) and local mining companies are working to find a solution to the 200-year storm potential breach. They are currently considering four projects, three within the Goldfields and one that would expand the levee system south of the mining area. Levee improvements for the 200-year storm level are estimated to cost around \$50 million. This funding has not yet been secured.

As a result, TRLIA is moving forward with an interim fix that is estimated to cost between \$500,000 and \$1 million. This interim project will help Yuba County retain its 100-year accreditation. To date, the Goldfields Interim Fix Study has achieved CEQA compliance. Construction is set to begin in 2015.

### State and Federal Compliance Status

South Yuba County has received FEMA 100-year Accreditation. Excluding the Goldfields area, RD 784 is essentially in compliance with the state's 200-year protection requirement. TRLIA will be making some additional 200-year improvements to the Western Pacific Interceptor Canal West Levee in 2015 due to DWR's Urban Levee Program results.

### MTP/SCS 2036 Implementation

Given RD 784's levee accreditation by FEMA, flood issues are not an impediment to development in this area. Development applications in portions of Plumas Lakes are currently proceeding without building elevation or flood insurance requirements.

The Goldfields area east of Marysville does not have any proposed urban development. Flooding in this area will have the largest impact on development for agricultural uses, including processing facilities such as silos and dryers.

The City is not planning for any major new residential development projects. All of its growth will come from infill and potential annexation.

### **City of Marysville**

#### Levee Status:

The current Flood Insurance Rate Map (FIRM) for the City reflects 100-year protection under a Provisionally Accredited Levee (PAL) Agreement. That Agreement expired in June 2010, but the FIRM has not been updated. As a result, they are not currently certified as having 100-year protection. Additionally, the DWR and the U.S. Army Corps of Engineers (USACE) have identified deficient areas in the levee system along the Feather and Yuba Rivers. The USACE has recently completed the first phase of a four-stage program to address these deficiencies and is in design on the other three stages.

Levees within the City's southern Sphere of Influence are within the jurisdiction of Reclamation District 784 and are certified as providing 200-year protection. The northern Sphere of Influence was deleted by recent LAFCO action.

### State and Federal Compliance Status

The City is expected to meet the 2015 requirement for creating a floodplain management plan. When the USACE completes the final phase of the Marysville Ring Levee project, the city will have approximately a 285-year level of protection. Unless the City is remapped into a floodplain by FEMA, there are no state or federal requirements that impede infill development.

### MTP/SCS 2036 Implementation

The City is not planning for any major new residential development projects within its city limits. All of its growth will come from infill and potential annexation.

### **City of Wheatland**

#### Levee Status

The levee along the north side of Bear River achieved certification by FEMA in 2011 for a 100-year storm event. Development interests funded the necessary levee improvements, and an assessment district was approved by land owners to provide for long-term levee maintenance. These levee improvements have changed FEMA's floodplain mapping and much of the area north of the improved levee has been revised from "Zone A" designations to "Zone X".

Levees along Dry Creek are not FEMA-certified and require evaluation and a plan for improvement. The evaluation, design and construction of the improvements needed to achieve FEMA certification is estimated to range between \$7-\$16 million.

#### FEMA and SB 5 Status

The Bear River levees are considered to be compliant with FEMA. Further study of the Dry Creek levees is needed to assess whether Wheatland will be compliant with SB 5. Reclamation District 2103 received almost a half million dollars and a commitment from the state for geotechnical work along this creek to conduct an evaluation of the levee and determine the scope of necessary improvements.

### MTP/SCS 2036 Implementation

Given the levee improvements along the Bear River and re-designation of the southern floodplain, development may occur in the southern portion of Wheatland. This includes the Heritage Oaks Estates, Roddan Ranch and Jones Ranch development projects. The latter two are mostly protected by the Bear River levees, but some fill is needed along the southerly edges of these developments to raise the ground above the 100-year flood elevation. Development in the north is moving more slowly due to needed levee improvements along Dry Creek. The Johnson Rancho Specific Plan is located mostly outside the floodplain, but some areas are within the Dry Creek floodplain that will need improvements before development would be allowed in those areas.