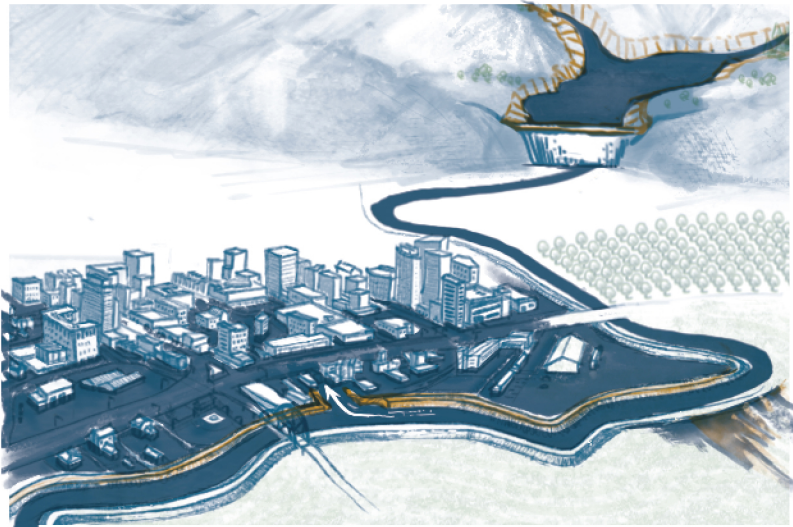


# FLOOD MANAGEMENT

## IN CALIFORNIA'S CENTRAL VALLEY

### CURRENT CONSTRAINTS

Reliance on levees **limits flood capacity**, **increases risk** of catastrophic damage and incurs **multiple, repeated costs**.



## WATER SUPPLY CONSTRAINTS

### CONSTRAINED WINTER RESERVOIR STORAGE

Dam operators empty storage to prevent winter flooding, reducing summer water supplies.

### LIMITED GROUNDWATER RECHARGE

Blocking rivers from floodplains reduces groundwater recharge.

### RISK TO DELTA SUPPLIES

High risk of levee failures threatens export supplies and salinity intrusion for farms and cities.



## INCREASED FLOOD RISK

### URBAN DAMAGE

An inadequate levee system increases risk of catastrophic floods.

### AGRICULTURAL LOSS

Economic value of lost crops has failed to justify agricultural flood protection.



## ENVIRONMENTAL IMPACTS

### DEGRADED WATER QUALITY

Only 5% of historical floodplain wetlands remain, reducing natural filtration and increasing pollutants.

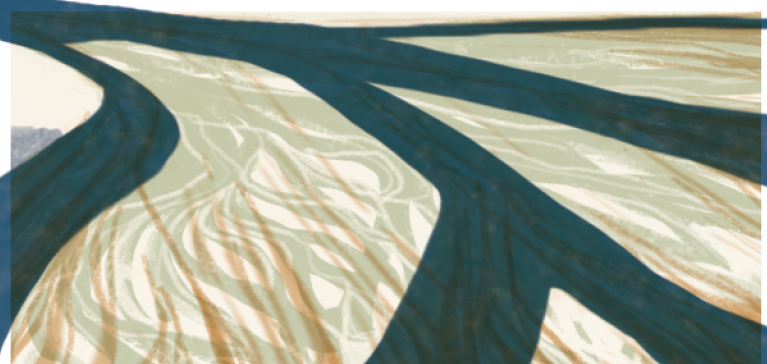
### THREATENED FISH + WILDLIFE

Reduced floodplain habitat and rip-rap levee banks threaten endangered species, increasing regulation and water supply restrictions.



Traditional levees block access to public waterways, limiting recreation.

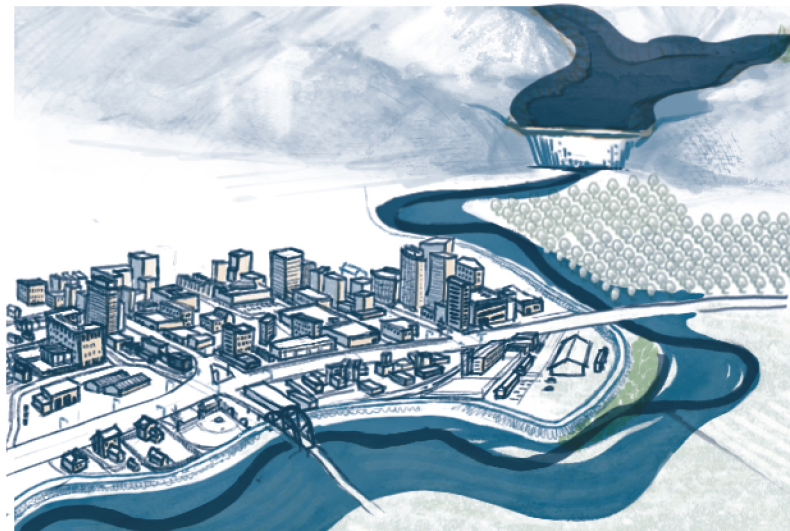
## RESTRICTED PUBLIC ACCESS





# FLOOD MANAGEMENT IN CALIFORNIA'S CENTRAL VALLEY THE MULTI-BENEFIT APPROACH

Multi-benefit projects **reduce flood risk and enhance fish + wildlife habitat** by supporting natural functions of rivers and floodplains.



## IMPROVED WATER SUPPLY

### INCREASED WINTER RESERVOIR STORAGE

Increased flood conveyance capacity gives dam operators flexibility to capture winter flows.

### REPLENISHED GROUNDWATER

Winter flows expand onto floodplains, recharge overtapped aquifers and bolster supply for future droughts.

### RELIABLE DELTA SUPPLIES

Decreased risk of levee failure improves water supply reliability for 25 million Californians.



## REDUCED FLOOD RISK

### URBAN BENEFITS

Setback levees allow safer floods and slower flows as more precipitation falls as rain, not snow.

## AGRICULTURAL BENEFITS

Cost-effective farm protection supports productive agriculture as storm intensity increases in a warming climate.



## ENVIRONMENTAL RESTORATION

### IMPROVED WATER QUALITY

Natural drainage patterns and restored floodplain wetlands filter and clean water.

### HABITAT FOR FISH + WILDLIFE

Allowing inundation of planned floodplains increases fish and wildlife habitat, countering stress from climate change.



Restored rivers create room for parks and trails in Central Valley communities.

## NEW PARKS & RECREATION

