

Coordinating Committee Update

June 22, 2016

Presented by:

Chris Williams, P.E.

Christopher.Williams@water.ca.gov

Central Valley Flood Planning Office

California Department of Water Resources

Today's Discussion

- **Why an Investment Strategy?**
- **Investment Strategy vs. Finance Plan**
- **Investment Strategy Components**
 - Existing Funding Sources & New Approaches
- **Next Steps**






















Why an Investment Strategy?

2017 CVFPP Update

- Refines and updates the State Systemwide Investment Approach (SSIA) described in 2012 CVFPP
- Not a new plan, an update to 2012 CVFPP
- Additional specificity about recommended near and longer-term investment and financing approach

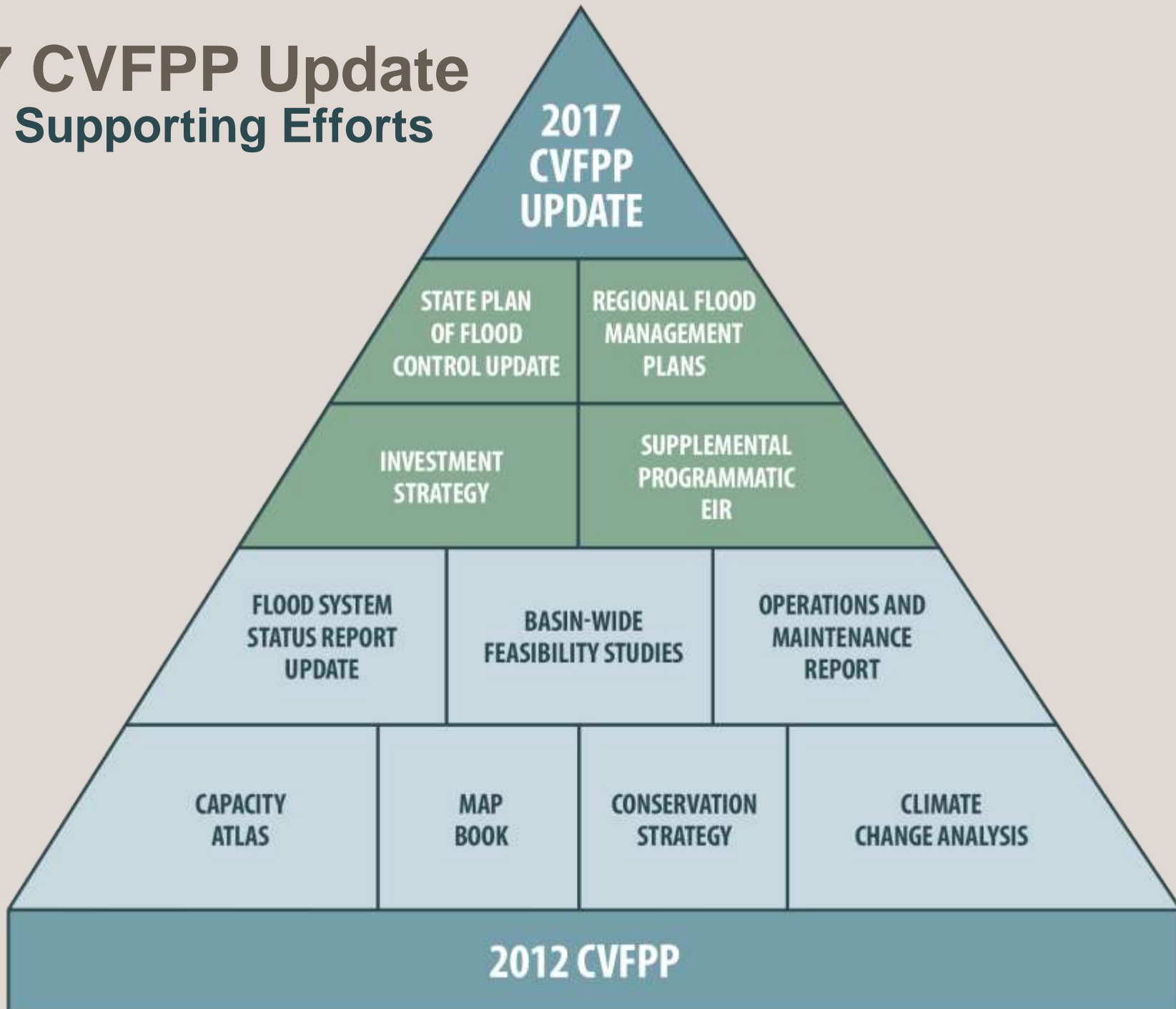


2017 CVFPP – Not a New Plan

| CVFPP GOALS | INTENDED OUTCOMES |
|---|---|
| Primary Goal: Improve flood risk management | |
| Reduce the chance of flooding |    |
| Reduce damages once flooding occurs |  |
| Improve public safety, preparedness, and emergency response |  |
| Supporting Goals | |
| Improve Operations and Maintenance |    |
| Promote Ecosystem Functions |     |
| Promote Multi-benefit Projects |     |
| Improve Institutional Support |     |
|  Improved Public Safety |  Stable and Growing Economy |
|  Enhancement of Vital Ecosystem Functions |  Enriching Experiences Provided for Californians |

2017 CVFPP Update

Major Supporting Efforts



Investment Strategy vs. Finance Plan



Investment Strategy

...a set of rules, behaviors or procedures, designed to guide an investor's selection of an investment portfolio

Finance Plan

...plan that allocates future income to various types of expenses; often includes a budget

Both are Key Elements of the CVFPP

- **Investment Strategy:** Identify investment needed to put in place management actions that achieve desired outcomes
- **Finance Plan:** Develop an approach to pay for these improvements
- As are **Enabling conditions:** Aligned programs, principle and policies in place necessary to achieve desired outcomes

Investment Strategy Purpose

Select the combination of management actions that best achieves the desired outcomes



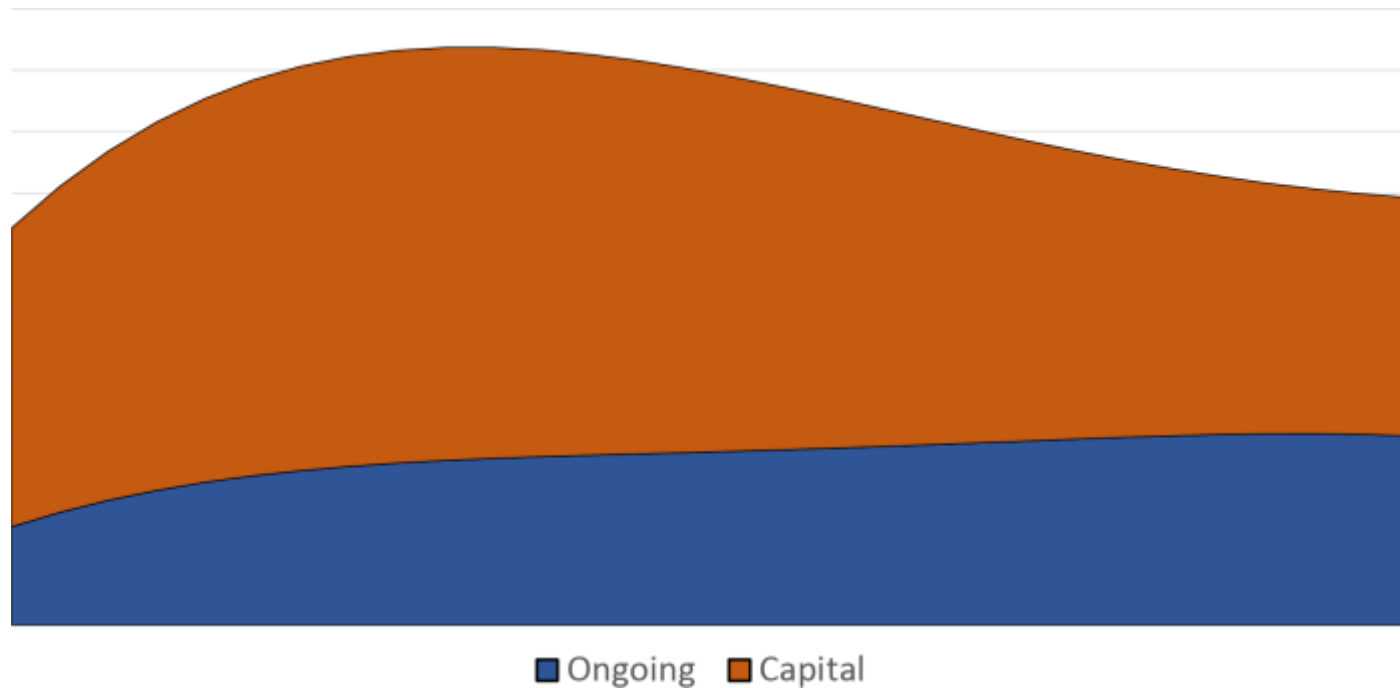
Finance Plan Purpose

- Match appropriate financing mechanism to each management action
- Consider factors such as beneficiary pays, ability to pay, assistance to disadvantaged communities

| | Mechanism | Applicable Investment Types | Level of Applicability | Inter-annual Reliability | Political or Legal Viability |
|-------|---------------------------------------|---|---|---|-----------------------------------|
| STATE | Additional General Fund \$ | Emergency Management & Response, System Maintenance and Operations (including for Ecosystem Reconciliation efforts), Development and Use of Technical Tools and Planning | High | Moderate | Low |
| | GO Bonds | Easements & Land Acquisitions, Levee and Channel Improvements, Bypass Expansions and Modifications, Storage (transitory, groundwater, and/or surface), Setback Levees, Floodproofing | High | High for bonds that have passed, Low over the long-term | Moderate |
| | Regulatory Fees | Ecosystem Reconciliation Efforts (potentially some share towards eco-friendly bypass or setback modifications) | High | Low and dependent on harmful behaviors | Low |
| | Water Surcharge | Ecosystem Reconciliation Efforts (potentially some share towards eco-friendly bypass or setback modifications) | Low (except for projects w/ ecosystem benefits) | High | Low |
| | Broad Surcharge Tax / River Basin Tax | Institutional capacity for performance tracking, risk-based technical analysis, landowner mitigation programs (for habitat-friendly ag, etc. . .), and local assistance | High | High | Moderate |
| LOCAL | Property Assessments | System Maintenance, Emergency Management & Response, Levee and Channel Improvements, Bypass Expansions and Modifications, Storage (transitory, groundwater, and/or surface), Setback Levees | High | High | Low or Moderate (Place-Dependent) |
| | Infrastructure Financing Districts | Levee and Channel Improvements, Bypass Expansions and Modifications, Storage (transitory, groundwater, and/or surface), Setback Levees, Floodproofing | Moderate | Moderate | Low |
| | Broad Special Tax | Institutional capacity for performance tracking and reporting, risk-based technical analysis, and landowner mitigation programs | High | High | Low |
| | Developer Fees | System Maintenance, Emergency Management & Response, Levee and Channel Improvements, Bypass Expansions and Modifications, Storage (transitory, groundwater, and/or surface), Setback Levees | High | Low | High |

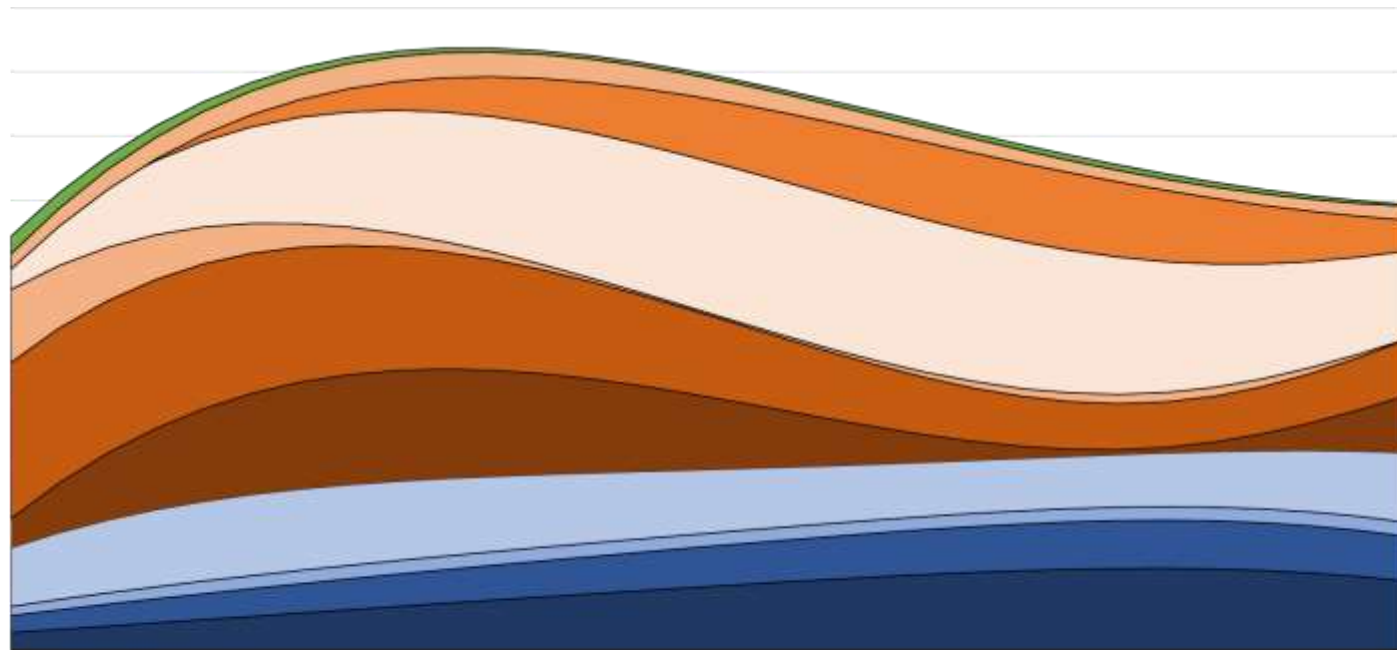
Investment Strategy Outputs

Ongoing vs. One Time Expenditures



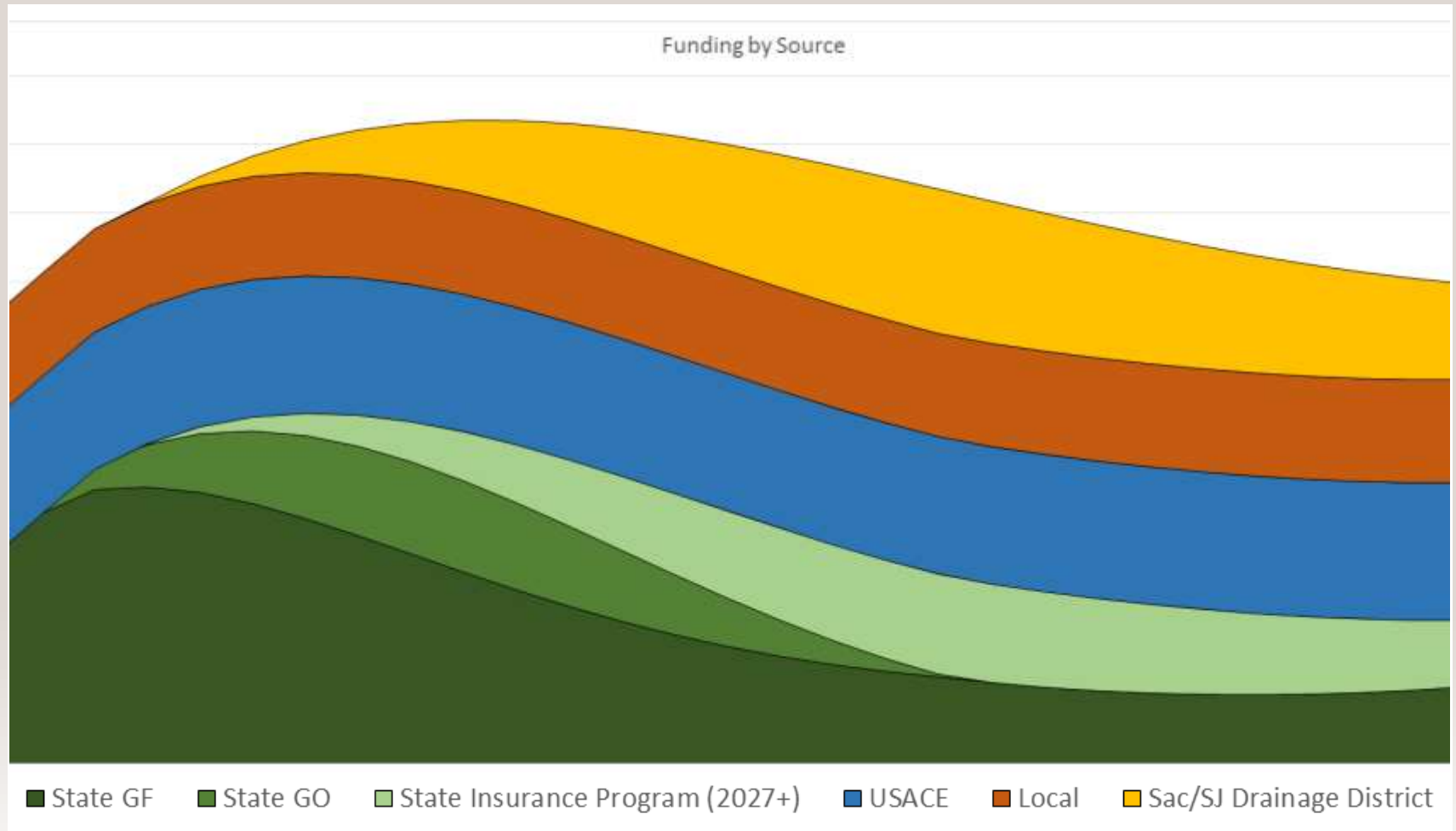
Investment Strategy Outputs

Investments by Management Action

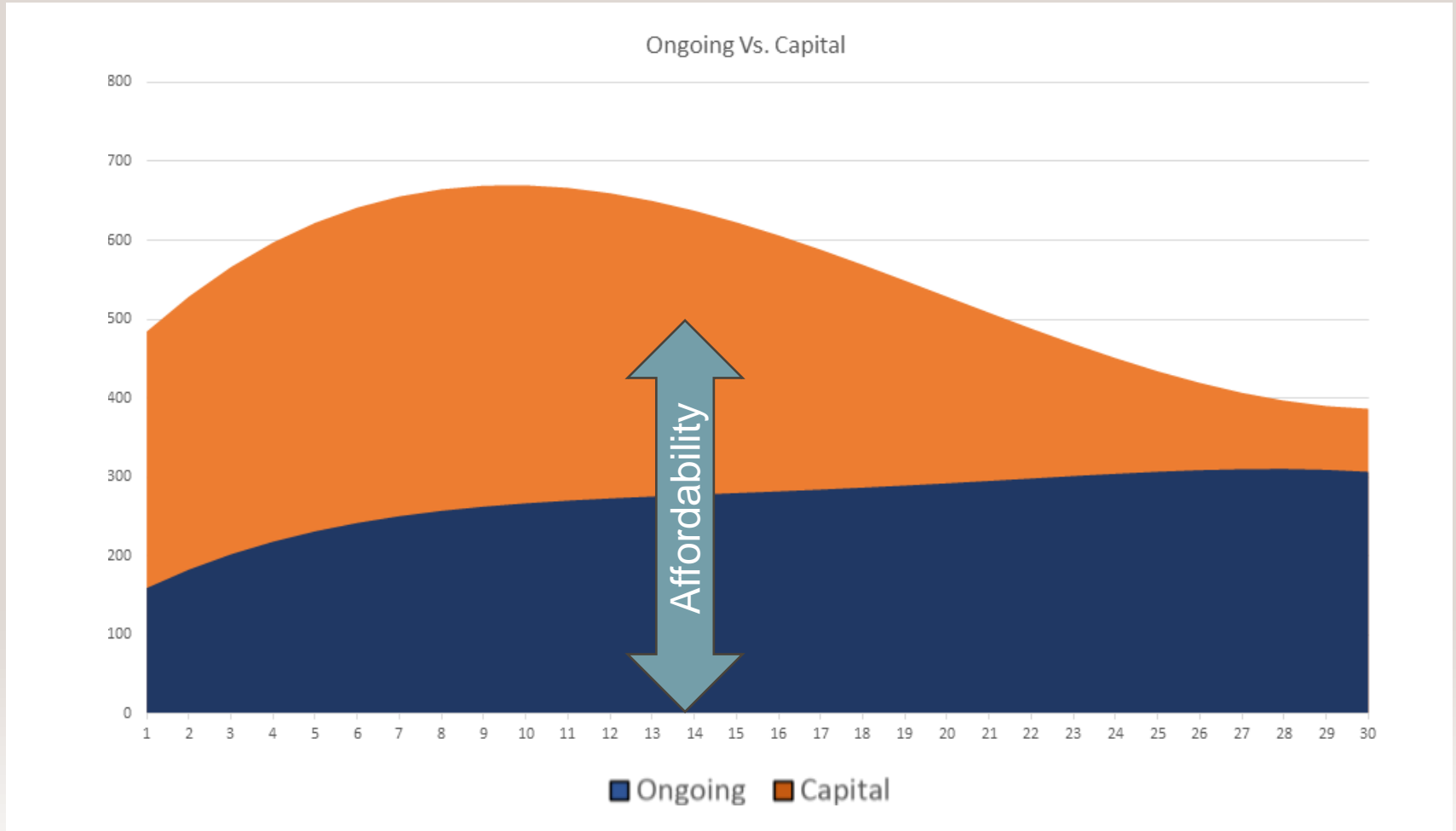


- | | | |
|-------------------------------------|---|---|
| ■ Systemwide | ■ Risk Awareness, Floodproofing & Land Use Planning | ■ Studies and Analysis |
| ■ Routine Maintenance | ■ Systemwide | ■ Levee Improvements |
| ■ Other Infrastructure Improvements | ■ Levee & Infrastructure Improvements | ■ Levee Setbacks, Bypasses & Floodplain Storage |
| ■ Land Acquisitions &/or Easements | ■ Habitat Restoration / Reconnection | |

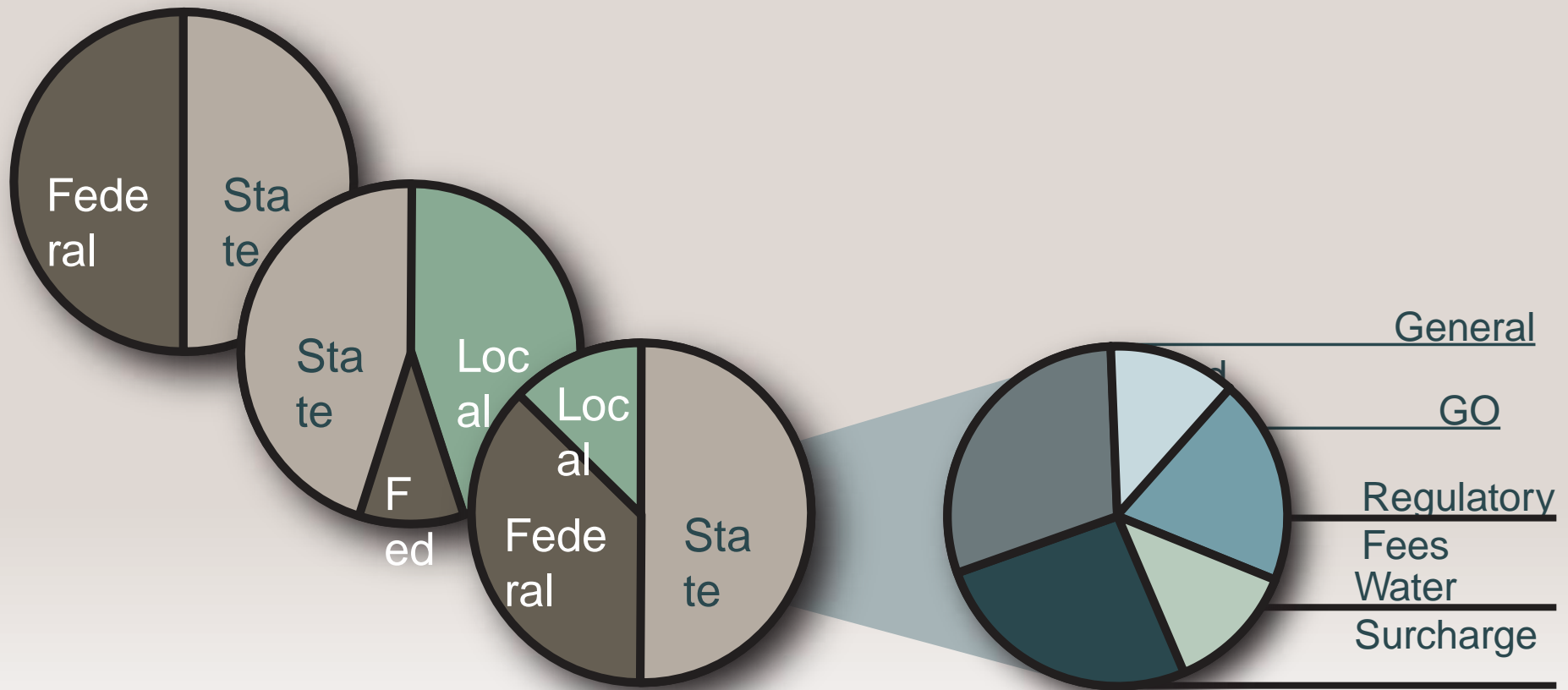
Finance Plan Output



Implemented Actions Depend on Revenue Generation Potential



The Finance Plan will Explore Cost Sharing Scenarios



Investment Strategy Components

State-Recommended Investment Portfolio

- 2017 CVFPP Update will include **State-Recommended Investment Portfolio**, informed by regional (RFMP) and system-wide (BWFS) portfolios
- Mixture of capital improvements, O&M and residual risk management activities
- Justification for State funding recommendations; define needed DWR program investments
- Not funding decision, permitting decision or endorsement for specific projects

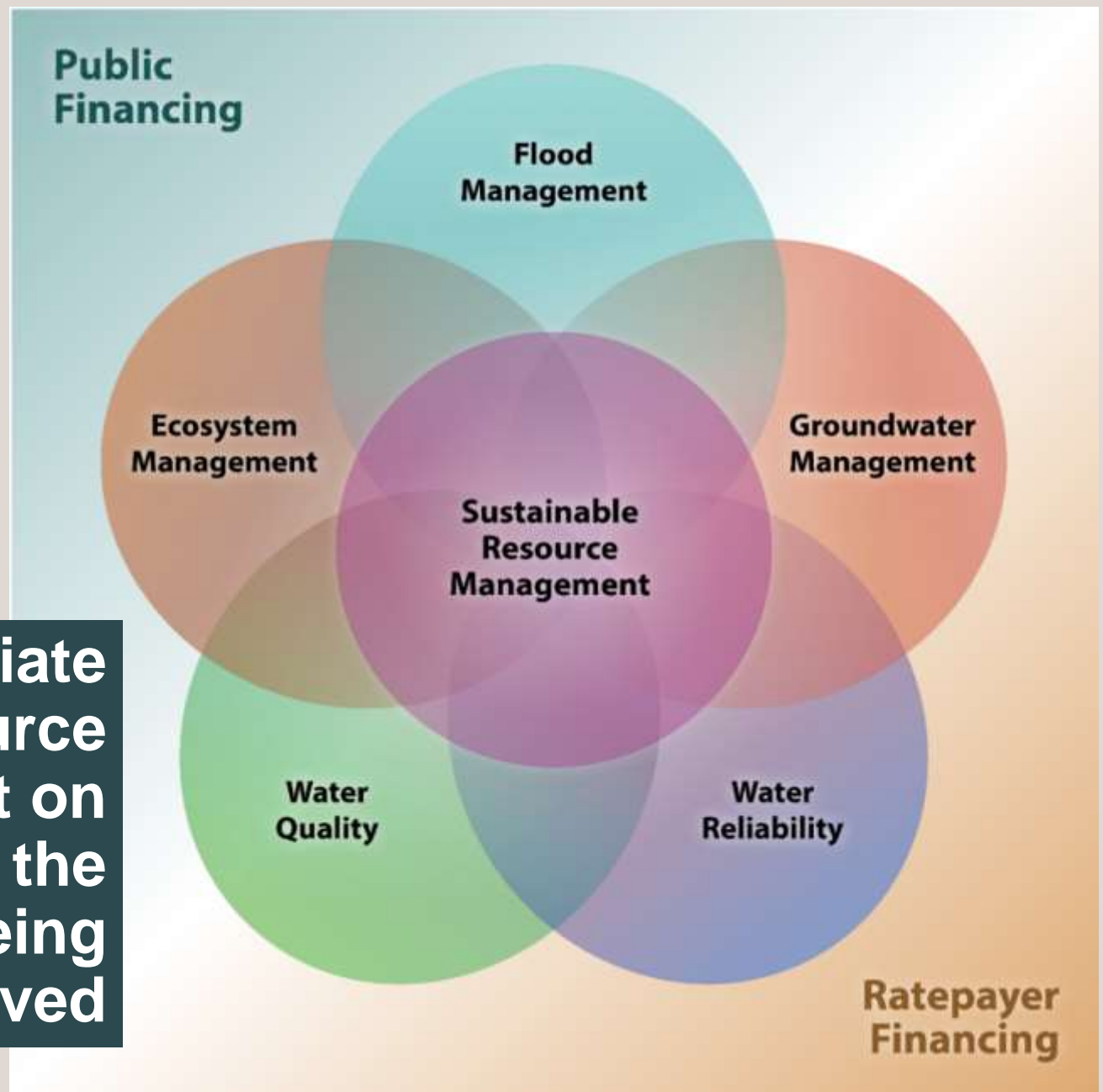
Ongoing Expenditures

| Action Type and Area of Interest | | Data Source | Investment Type | Sacramento | | San Joaquin | | Total | | | | |
|--------------------------------------|---|---|-----------------|------------------|------------------|------------------|------------------|------------------|------------------|---------|---|---------|
| | | | | Low | High | Low | High | Low | High | | | |
| | | | | (\$ in Millions) | (\$ in Millions) | (\$ in Millions) | (\$ in Millions) | (\$ in Millions) | (\$ in Millions) | | | |
| Ongoing Investments | | | | | | | | | | | | |
| Systemwide | State Ops, Planning and Performance Tracking | RFMP & DWR Study | Annual | \$21 | - | \$26 | \$20 | - | \$25 | \$42 | - | \$51 |
| | Emergency Management | RFMP & DWR Study | Annual | \$10 | - | \$13 | \$12 | - | \$15 | \$22 | - | \$28 |
| | Reservoir Operations | BWFS | Annual | \$1 | - | \$2 | \$1 | - | \$1 | \$2 | - | \$2 |
| Annual Subtotal: | | | | \$33 | | \$40 | \$33 | | \$41 | \$66 | | \$81 |
| Urban | Risk Awareness, Floodproofing and Land Use Planning | RFMP & Emergency/ Floodplain Mgmt. Effort | Annual | \$ | - | \$5 | \$4 | - | \$5 | \$8 | | \$10 |
| | Studies and Analysis | RFMP & USACE | Annual | \$5 | - | \$6 | \$1 | - | \$1 | \$6 | | \$7 |
| | Routine Maintenance | OMRR&R Workgroup | Annual | \$18 | - | \$22 | \$5 | - | \$6 | \$23 | | \$29 |
| Annual Subtotal: | | | | \$27 | | \$33 | \$10 | | \$12 | \$37 | | \$45 |
| Rural | Risk Awareness, Floodproofing and Land Use Planning | RFMP & Emergency/ Floodplain Mgmt. Effort | Annual | \$1 | - | \$1 | \$4 | - | \$4 | \$5 | - | \$5 |
| | Studies and Analysis | RFMP | Annual | \$3 | - | \$4 | \$1 | - | \$1 | \$4 | - | \$4 |
| | Routine Maintenance | OMRR&R Workgroup | Annual | \$31 | - | \$37 | \$17 | - | \$20 | \$47 | - | \$58 |
| Annual Subtotal: | | | | \$35 | | \$42 | \$21 | | \$25 | \$56 | | \$67 |
| Small Community | Risk Awareness, Floodproofing and Land Use Planning | RFMP & Emergency/ Floodplain Mgmt. Effort | Annual | \$15 | - | \$18 | \$19 | - | \$23 | \$34 | - | \$41 |
| | Studies and Analysis | RFMP & Small Communities Program | Annual | \$10 | - | \$12 | \$- | - | \$- | \$10 | - | \$12 |
| | Routine Maintenance | OMRR&R Workgroup | Annual | \$14 | - | \$17 | \$1 | - | \$1 | \$14 | - | \$17 |
| Annual Subtotal: | | | | \$38 | | \$47 | \$19 | | \$23 | \$58 | | \$70 |
| Ongoing Annual Total: | | | | \$133 | | \$162 | \$83 | | \$101 | \$216 | | \$263 |
| Ongoing 30-year Present Value Total: | | | | \$2,600 | | \$3,180 | \$1,630 | | \$1,980 | \$4,230 | | \$5,160 |

One Time Expenditures

| Action Type and Area of Interest | | Data Source | Sacramento | | | | | | Total | | |
|----------------------------------|--|--|-------------------------|---|--------------------------|-------------------------|---|--------------------------|-------------------------|---|--------------------------|
| | | | Low (\$ in Millions) | | High (\$ in Millions) | Low (\$ in Millions) | | High (\$ in Millions) | Low (\$ in Millions) | | High (\$ in Millions) |
| One-time Investments | | | | | | | | | | | |
| Systemwide | Yolo Bypass | BWFS | \$1,630 | - | \$1,990 | \$ - | - | \$ - | \$1,630 | - | \$1,990 |
| | Feather River-Sutter Bypass Improvements | BWFS | \$600 | - | \$2,300 | \$ - | - | \$ - | \$600 | - | \$2,300 |
| | Paradise Cut | BWFS | \$ - | - | \$ - | \$290 | - | \$360 | \$290 | - | \$360 |
| | Reservoir and Floodplain Storage | BWFS & RFMP | \$130 | - | \$160 | \$730 | - | \$890 | \$860 | - | \$1,050 |
| Subtotal: | | | \$2,360 | - | \$4,450 | \$1,020 | - | \$1,250 | \$3,380 | - | \$5,700 |
| Urban | Levee Improvements | USACE | \$3,050 | - | \$3,720 | \$900 | - | \$1,100 | \$3,950 | - | \$4,820 |
| | Other Infrastructure Improvements | RFMP & OMRR&R Workgroup | \$280 | - | \$400 | \$520 | - | \$630 | \$800 | - | \$970 |
| Subtotal: | | | \$3,330 | - | \$4,120 | \$1,420 | - | \$1,730 | \$4,750 | - | \$5,790 |
| Rural | Levee and Infrastructure Improvements | RFMP & OMRR&R Workgroup | \$590 | - | \$1,100 | \$760 | - | \$920 | \$2,350 | - | \$2,870 |
| | Setbacks, Bypasses and Floodplain Storage | RFMP | \$ - | - | \$90 | \$50 | - | \$60 | \$130 | - | \$150 |
| | Land Acquisitions and Easements | RFMP & Emergency/ Floodplain Mgmt Effort | \$360 | - | \$440 | \$360 | - | \$440 | \$720 | - | \$880 |
| | Habitat Restoration/ Reconnection | RFMP | \$240 | - | \$290 | \$10 | - | \$10 | \$250 | - | \$300 |
| Subtotal: | | | \$2,270 | - | \$2,770 | \$1,180 | - | \$1,430 | \$3,450 | - | \$4,200 |
| Small Community | Levee and Infrastructure Improvements | BWFS, RFMP, & OMRR&R Workgroup | \$1,100 | - | \$1,340 | \$100 | - | \$120 | \$1,200 | - | \$1,460 |
| | Land Acquisitions, Setbacks and Floodplain Storage | RFMP & Emergency/ Floodplain Mgmt Effort | \$710 | - | \$870 | \$180 | - | \$220 | \$890 | - | \$1,090 |
| Subtotal: | | | \$1,810 | - | \$2,210 | \$280 | - | \$340 | \$2,090 | - | \$2,550 |
| One-time Total: | | | \$9,770 | - | \$13,490 | \$3,900 | - | \$4,750 | \$13,670 | - | \$18,240 |

**Appropriate
funding source
dependent on
the scale of the
benefits being
received**



Existing Funding Sources

- Local
 - Property Assessments (Work to revise Prop 218)
- State
 - General Fund
 - General Obligation Bonds
- Federal
 - FEMA
 - USACE

Funding Sources

| | Mechanism | Applicable Investment Types | Level of Applicability | Inter-annual Reliability | Political or Legal Viability |
|-------|---------------------------------------|---|---|---|-----------------------------------|
| STATE | Additional General Fund \$ | Emergency Management & Response, System Maintenance and Operations (including for Ecosystem Reconciliation efforts), Development and Use of Technical Tools and Planning | High | Moderate | Low |
| | GO Bonds | Easements & Land Acquisitions, Levee and Channel Improvements, Bypass Expansions and Modifications, Storage (transitory, groundwater, and/or surface), Setback Levees, Floodproofing | High | High for bonds that have passed, Low over the long-term | Moderate |
| | Regulatory Fees | Ecosystem Reconciliation Efforts (potentially some share towards eco-friendly bypass or setback modifications) | High | Low and dependent on harmful behaviors | Low |
| | Water Surcharge | Ecosystem Reconciliation Efforts (potentially some share towards eco-friendly bypass or setback modifications) | Low (except for projects w/ ecosystem benefits) | High | Low |
| | Broad Surcharge Tax / River Basin Tax | Institutional capacity for performance tracking, risk-based technical analysis, landowner mitigation programs (for habitat-friendly ag. etc. . .), and local assistance | High | High | Moderate |
| LOCAL | Property Assessments | System Maintenance, Emergency Management & Response, Levee and Channel Improvements, Bypass Expansions and Modifications, Storage (transitory, groundwater, and/or surface), Setback Levees | High | High | Low or Moderate (Place-Dependent) |
| | Infrastructure Financing Districts | Levee and Channel Improvements, Bypass Expansions and Modifications, Storage (transitory, groundwater, and/or surface), Setback Levees, Floodproofing | Moderate | Moderate | Low |
| | Broad Special Tax | Institutional capacity for performance tracking and reporting, risk-based technical analysis, and landowner mitigation programs | High | High | Low |
| | Developer Fees | System Maintenance, Emergency Management & Response, Levee and Channel Improvements, Bypass Expansions and Modifications, Storage (transitory, groundwater, and/or surface), Setback Levees | High | Low | High |

New Funding Solutions

- Near, mid term solutions
 - Sacramento San Joaquin Drainage District
 - Water surcharge
 - Ecosystem funding sources
- Long term solutions
 - State flood insurance
 - River basin assessments

Sacramento and San Joaquin Drainage District

- Initially proposed in 2003 to the American River Flood Control District (Sacramento and San Joaquin Drainage District)
- Legislature created the Sacramento and San Joaquin Drainage District in 1913
 - Quit assessments in late 1930s
 - Would need revisions to boundaries
- Could be targeted to ongoing O&M obligations
- A regional assessment may not need to meet Prop 218 requirements

Water Surcharge - Fee Collected from Retail Water Suppliers

- Funds would support water management activities described in California Water Plan
- Designated entity, such as a reconfigured California Water Commission, would oversee distribution of funds and recommend changes or improvements to the fund and fee structure
- Funds would pay for programs of statewide significance, including funding for the public trust benefits of new surface water storage projects such as ecosystem restoration and flood control

Ecosystem funding

- For multi-benefit projects, state and federal grant for ecosystem will be leveraged
- These grant programs could provide enough funds to add features to single purpose projects to better achieve ecosystem outcomes

State Flood Insurance

- Explore replacing or augmenting NFIP with State Flood Insurance Program
- State-sponsored program could allow the State to use a portion of insurance premiums to purchase re-insurance
- Another portion of insurance premiums could be used to implement risk reduction measures
- Will require the State to take on significant risk

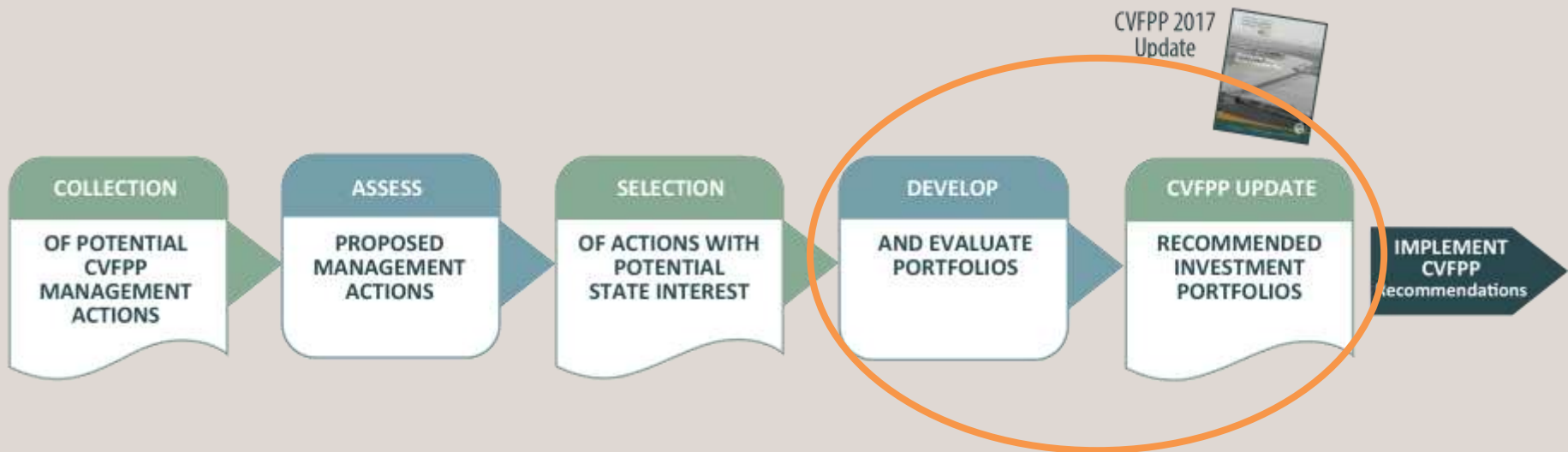
River Basin Assessments

- Potential funding mechanism for integrated water management
- State would impose a statewide assessment for integrated water management.
- 85-90% of the total assessments in a river basin would be returned to the river basin for integrated water projects
- 10-15% would stay with the State for systemwide activities such as climate change studies, integrated water management activities, etc.

What's Next?



Moving Toward Recommended Investment Portfolios



Develop and Evaluate Portfolios

CVFPP 2017
Update



DEVELOP

AND EVALUATE PORTFOLIOS

- Holistically contribute to intended outcomes of flood management in California
- More resilient to future stressors than individual actions
- Cost effective
- Value of whole is greater than the sum of parts
- Diverse geographies, sizes, and scales

CVFPP UPDATE

RECOMMENDED INVESTMENT PORTFOLIOS

- Near and long term
- Regional and systemwide portfolios
- Portfolios include some or all types of improvements:
 - System-scale
 - Urban
 - Small communities
 - Rural-agricultural
 - Residual risk management

Portfolio Refinement

- Process to refine and build regional portfolios is imperfect, but a starting point for discussion
- Process attempts to look at the highly diverse set of regional management actions in an efficient and cohesive manner
- Process is iterative – the regions are invited to be actively engaged and propose changes, revisions
- Portfolios will be continually revised, and formally updated every five years (2022, 2027, etc.)

State-Recommended Investment Portfolio

- 2017 CVFPP Update will include a State-Recommended Investment Portfolio informed by Regional and System wide Portfolios
- Will represent a diversity of outcomes, actions and costs
- Will be the basis and justification for State recommendations for funding, but not a funding decision or endorsement for specific projects
- Projects not included in 2017 portfolio aren't precluded from being included in a subsequent CVFPP Updates, nor are regional partners prevented from exploring other funding opportunities

CVFPP 2017
Update



CVFPP UPDATE

RECOMMENDED INVESTMENT PORTFOLIOS

- Near and long term
- Regional and systemwide portfolios
- Portfolios include some or all types of improvements:
 - System-scale
 - Urban
 - Small communities
 - Rural-agricultural
 - Residual risk management

Coordinating Committee Update

June 22, 2016

Presented by:

Chris Williams, P.E.

Christopher.Williams@water.ca.gov

Central Valley Flood Planning Office

California Department of Water Resources