

Coconino Plateau Watershed Partnership

Coconino Plateau Technical Advisory Committee

Examples of Sustainable
Water Management Plans
and CPWP Questionnaire

July 29, 2016



Sustainable Water Management Planning

A water droplet is shown falling from the top center of the frame into a pool of water. The impact has created several concentric ripples that spread outwards. The background is a light blue gradient, and the water droplet and ripples are rendered with realistic lighting and shadows.

Strategic Plan >> SWM plan as a high priority.

What are CPWP SWM goals and how will info be used?

SWM planning is a large effort that requires significant resources.

Questionnaire to assess CPWP SWM expectations.

Results used to develop SOW to complete SWM planning.

Sustainable Water Management

Example Sustainable Water Management Plans

- City of Maribyrnong, Australia, Sustainable Water Management Plan, June 2006
Pronounced “Mirring-gnay-bir-nong”
- Sustainable Water Management Plan, Apalachicola, Chattahoochee, Flint (ACF) Stakeholders, May 2015

Sustainable Water Management

Example Sustainable Water Management Plans



City of Maribyrnong, Australia,
Sustainable Water Management Plan
June 2006

Pronounced “Mirring-gnay-bir-nong”

Sustainable Water Management

Example City of Maribyrnong, Australia

Why the plan was prepared

- Local governments lead by example
- Conservation
- Improve water quality
- Ease cost of implementation
- Capacity for education and awareness raising
- Bring positive benefits to community

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Example City of Maribyrnong, Australia

Water Conservation

- Developed indicators
 - Total water consumption
 - Total rainwater, stormwater, greywater reused
 - Capacity rainwater storage tanks
 - Number of flow control valves installed
 - Number of low water use fixtures
- Identified objectives to reduce water consumption
- Developed a water conservation action plan and initiatives
- Identified 41 water conservation actions
- Council actions resulted in 30% water savings since 2001

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Example City of Maribyrnong

Water Quality

- Profiled Maribyrnong's water quality
- Identified existing policies
- Raised profile of existing plans
- Milestones
 - Inventory
 - Council commitment to improve water quality 50 points by 2015 using an International Council for Local Environmental Initiatives (ICLEI) scoring system
- Identified issues and opportunities
- Identified indicators to measure progress
- Initiated 15 actions to improve water quality

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Example City of Maribyrnong

Implementation, monitoring and review

- Extent and timing based on availability of funds
- Annual reporting will continue to the Council
- Scheduled review to assess progress toward goals
- To date, Council actions resulted in 30% water savings

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Example Sustainable Water Management Plans

Sustainable Water Management Plan
Apalachicola, Chattahoochee, Flint
Stakeholders (ACFS)
May 2015

Sustainable Water Management

Example Apalachicola, Chattahoochee, Flint Stakeholders

- ACFS has 56 members
- Financial contributions from 73 donors
- Raised \$1.7 million to fund technical analyses and SWM plan
- Technical Oversight to help guide development of plan – 12 members
- 35 volunteers
- 25,000 volunteer hours

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Example Apalachicola, Chattahoochee, Flint Stakeholders

Stakeholders coordinated to address the following interests:

- Identify sustainable water supply
- Navigation, hydropower
- Increased recreation and ecotourism
- Increased AG productivity
- Maintain instream and ecosystem flows
- Water quality and ecological function of basin

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Example Apalachicola, Chattahoochee, Flint Stakeholders

- Recommends USACE modify reservoir level and discharge policies
- Completed a Revised Interim Operation Plan for the USACE to protect T&E species (requiring minimum flows)
- States of Alabama, Florida, and Georgia manage water in the basin

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Example Apalachicola, Chattahoochee, Flint Stakeholders

- Developed plan for water withdrawals and returns
- Documented needs and concerns for stakeholder groups and geographic areas
- Developed performance metrics
- Assessed water management alternatives with modeling

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Example Apalachicola, Chattahoochee, Flint Stakeholders

Recommendations:

- Achieve Sustainable Use and Return
- Improve Water Storage and Control Operations
- Target Dry and Drought Years
- Advance Scientific and Technical Knowledge for Future Decisions
- Strengthen Basin Coordination

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Example Apalachicola, Chattahoochee, Flint Stakeholders

- Sustainability package was adopted based on:
 - System storage in future dry years no worse than current dry years
 - Dry year instream flows do not become targets for wet year flows
 - Flood control is not adversely affected
- ACFS urges the USACE to develop and utilize predictive indicators and triggers to assist in drought year decision making
- ACFS recommend future studies:
 - Environmental & Ecological
 - Climate variability
 - Shared real-time data
 - Modeling improvements

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Example Apalachicola, Chattahoochee, Flint Stakeholders

Lessons learned for Sustainable Water Management solutions:

- Collaborative efforts essential
- Sustain and enhance communication
- Identify structure for transboundary management

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Example Apalachicola, Chattahoochee, Flint Stakeholders

Consensus:

- Did not come easy
- Established performance metrics
- Identified current conditions
- Identified effects of water management alternatives
- Developed six major planning objectives

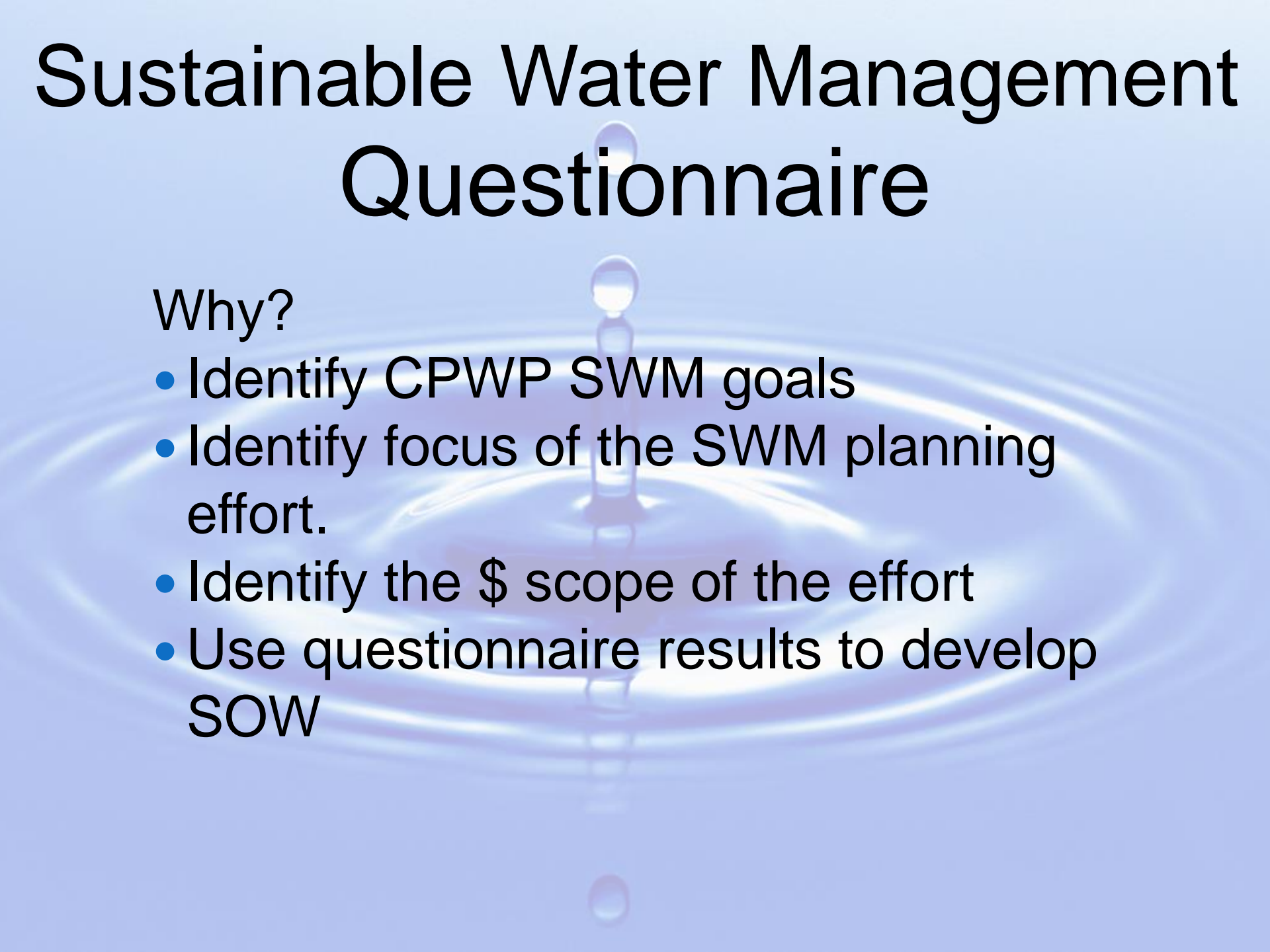
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Example Apalachicola, Chattahoochee, Flint Stakeholders

Planning Objectives

- Ensure / maintain adequate water supplies
- Maintain existing and promote future water supplies for industry, power and recreation
- Promote water use optimization
- Determine nature and extent of commercial navigation basin can support
- Protect natural systems and ecology by defining and implementing flow regimes / lake levels
- Promote collaborations

Sustainable Water Management Questionnaire



Why?

- Identify CPWP SWM goals
- Identify focus of the SWM planning effort.
- Identify the \$ scope of the effort
- Use questionnaire results to develop SOW

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Scope Determination Questions for the CPWP

1. What do you envision the SWM effort to include?
2. What do you envision the SWM plan to look like?
3. Who do you envision collecting data, writing the report and generating posters, etc.?
4. How do you envision the SWM plan to be used?
5. Assuming the majority of the SWM effort is contracted for, what level of financial support should be considered by the CPWP?
6. Prioritize sustainable water topics you believe are important to the sustainable water management plan.
7. What else should be addressed in the SWM effort?

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Scope Determination Questions for the CPWP

1. Complete questionnaire
2. Take a 10 minute Break
3. Review questionnaire preliminary results
4. Discussion
5. Identify and confirm SWM plan level of effort and work product
6. CPTAC will prepare and submit to CPWP SWM plan SOW

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Scope Determination Questions for the CPWP

QUESTIONS/COMMENTS Contact:

Deborah Tosline
dtosline@usbr.gov
623-773-6277

OR

Ron Doba
rdoba@cox.net
480-299-5764