

IRP Steering Committee

April 27, 2010

Adaptive Resource Options

- Conservation
- Recycled Water
- Graywater
- Stormwater
- Groundwater
- Seawater Desalination

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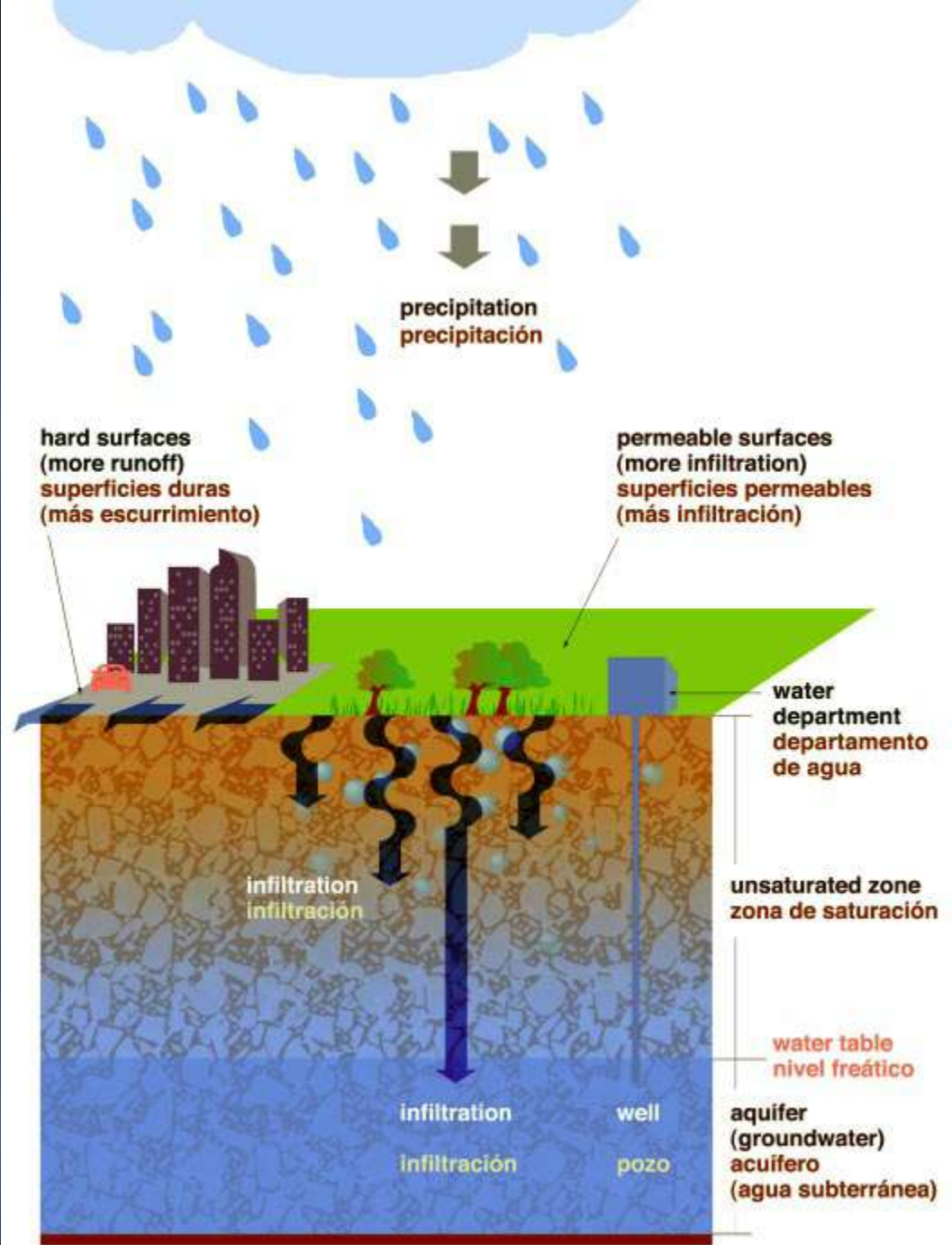
Review of Technical Workgroup Findings

- Goal of Workgroups:
 - Provide existing and potential inventory
 - Develop technical issue papers

Stormwater

Stormwater

Enhance
Stormwater/Urban
Runoff capture and
use to increase local
water supplies



Stormwater – Project Types: Groundwater Infiltration



Rubber Dams

Spreading Grounds



Stormwater – Project Types: Reservoir Capture



San Diego Sweetwater Reservoir

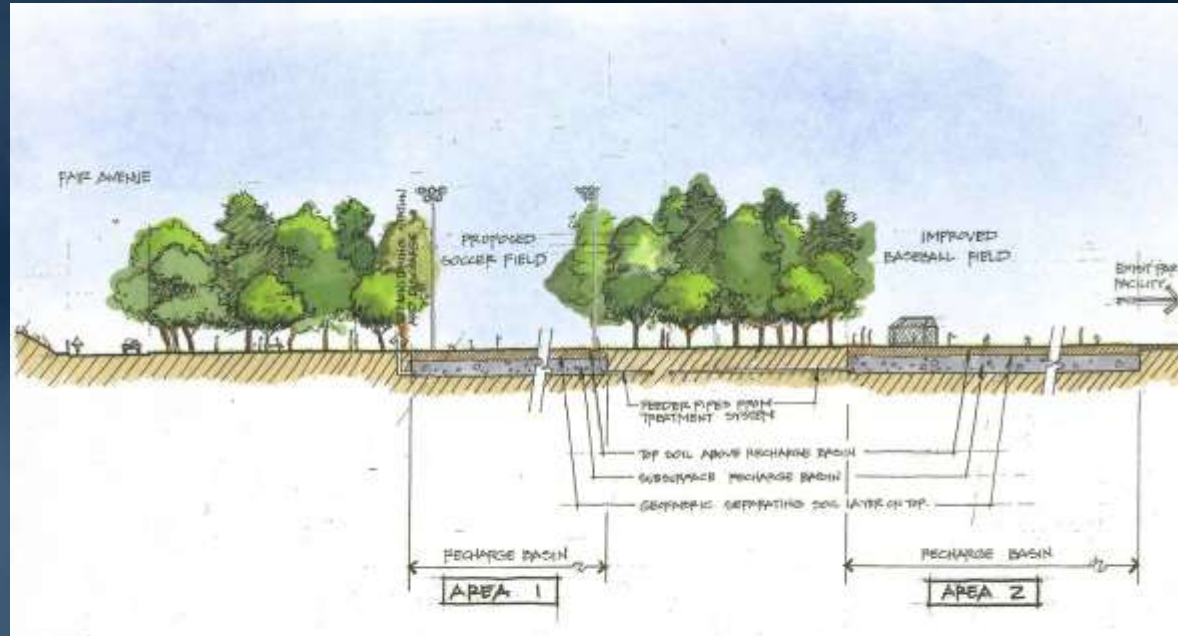
Stormwater – Project Types: Wetlands and Retention



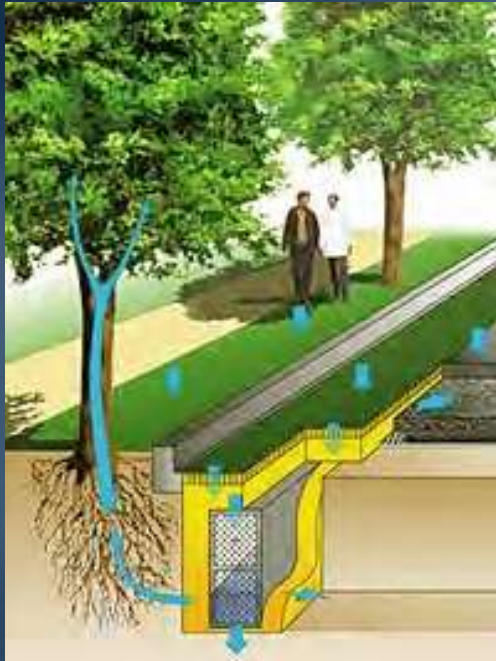
Stormwater Retention Basins and Wetlands



Stormwater – Project Types: Underground Infiltration



Stormwater – Project Types: Residential/Commercial Infiltration



Stormwater – Project Types: Direct Use

Large Cisterns



Residential Cisterns

Stormwater

● Opportunities

- An annual average of 1 million acre-feet of runoff generated within the urban areas
- Over 3 million AF of additional Groundwater storage space is currently available
- There are various methods to capture and use stormwater runoff
- Multiple benefits may help to find funding partners

Stormwater

● Benefits

- Reduce flooding and storm pollution
- Increase in recreational space and wildlife habitat
- Water quality improvements
- Augment water supply
- Other environmental benefits

● Potential project partners

- County Flood Control agencies
- Groundwater replenishment agencies
- Non-governmental Organizations

Stormwater

● Issues

- Calculating increases in yield: Quantifying the relationship between stormwater capture and groundwater production yield
- Determining the water supply component costs and other cost-sharing
- Current groundwater basin management structures
- Water Quality
- Funding
 - High cost projects
 - High cost of land for project sites

Stormwater Recommendations

● Research

- Identify and study pilot project opportunities
- Investigate effectiveness of a regional incentive/rebate program
 - Develop benefit/cost analysis for future projects
- Encourage information sharing of challenges and lessons learned

Stormwater Recommendations

- Regional Coordination

- Coordinate a proactive, unified approach to legislation and regulation for the region
- Continue to provide an avenue for open regional discussion
- Encourage partnerships to educate the public and increase message consistency

Groundwater

Groundwater Workgroup

- Process

- Groundwater Assessment Study 2005-2007
- Facilitated meetings began in Mid-2008
- Participants
 - Member Agencies
 - Groundwater Basin Managers
 - Metropolitan Staff

Groundwater

- Overall

- Average of about 1.5 million acre-feet of groundwater produced within service area
- About 50 percent of groundwater production is supported by active recharge
 - 15 percent - Metropolitan
 - 30 percent - Runoff capture
 - 5 percent - Other

Groundwater

● Issues

- Over 3 million acre-feet of additional storage space in groundwater basins in service area
- Water quality issues impact use of groundwater resources
- Reliable use of groundwater requires balancing stormwater and recycled water recharge with imported replenishment water
 - Basin requirements
 - Storms
 - Salinity and water quality

Groundwater Recommendations

- Groundwater Workgroup Study
 - Evaluate regional imported water availability for local groundwater basins and surface water reservoirs
 - Create modules to simulate groundwater operation/response in IRPSIM
 - Coordinate with basin managers to confirm results
 - Develop measures to optimize local groundwater recharge and surface reservoir augmentation
 - Integrate results into ongoing regional resource planning efforts to enhance regional water supply reliability

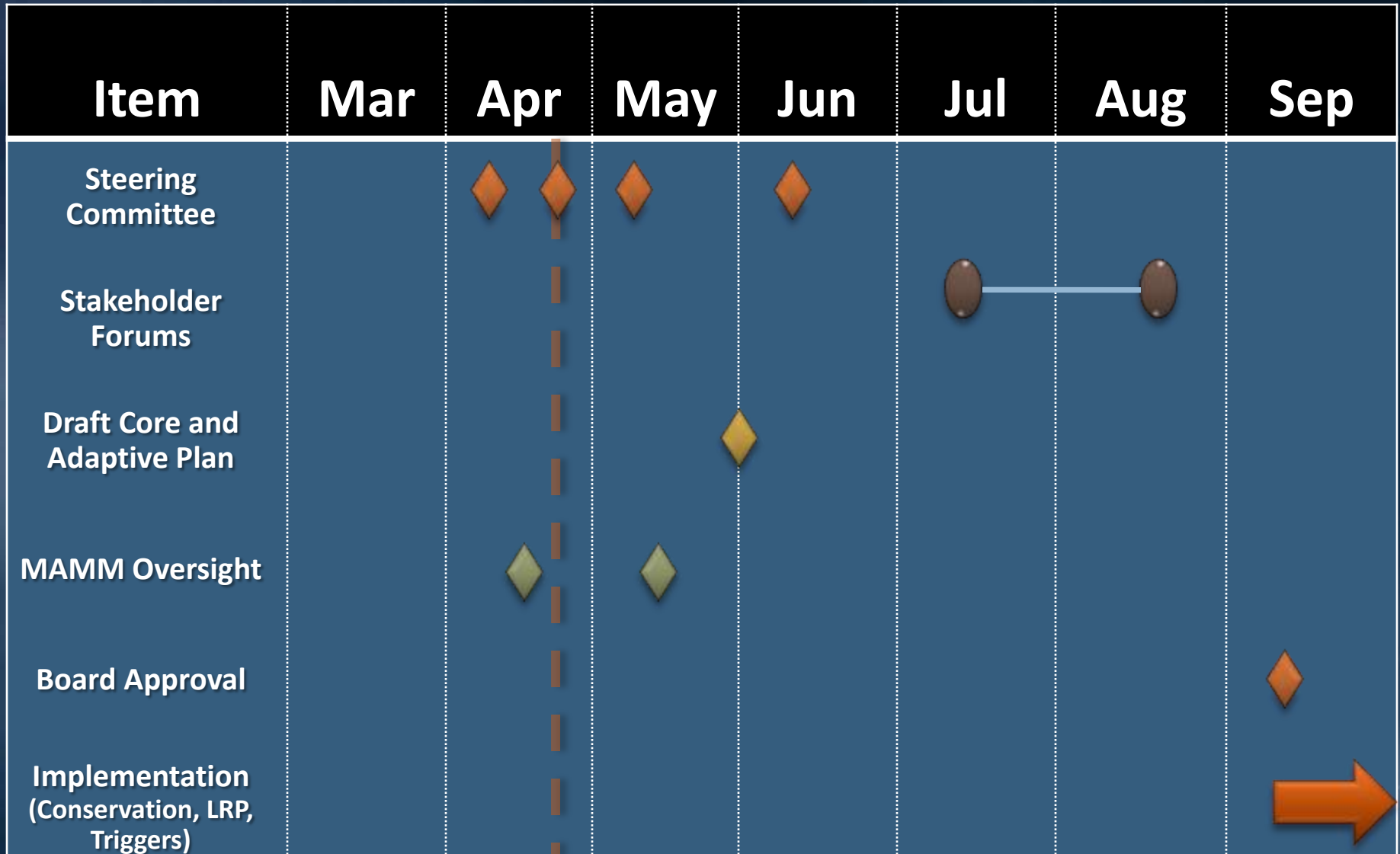
Groundwater Recommendations

- Coordinated Regional Efforts
 - Joint legislative actions and educational initiatives among Metropolitan, member agencies, and groundwater organizations
 - Increase integration of imported water and groundwater planning and groundwater and surface water storage
- Develop flexible regional policies and programs that allow for differences among groundwater basins

Groundwater

- Further Efforts to Resolve
 - Explore means to equitably share risk
 - Water pricing/performance expectations for imported water replenishment of groundwater basins
 - Mutually acceptable cost-sharing agreements and expected benefits of expenditures for capital infrastructure development

2010 IRP Process Timeline



Agenda for next IRP Steering Committee – May 11

- Seawater Desalination
- Overview of proposed minimum/no regrets actions in each adaptive resource area



Stormwater

Simplified Approach to Quantifying Imported Water Demand Offsets

