

Groundwater Banking Subcommittee

Meeting No. 1

Introduction and Project Goals





Agenda Items

- 1. Introduction**
- 2. Project Goals and Approach**
- 3. Project Schedule**
- 4. Role of Groundwater Banking Subcommittee**
- 5. Preliminary Engineering Tech Memo**
- 6. Next Meeting**





Introductions

- **Michael Cornelius – Project Manager (B-E/GEI)**
- **Paul Sorensen –Hydrogeologic Feasibility Lead (Fugro)**
- **Tim Cleath – Hydrogeologic Feasibility (Cleath & Associates)**
- **Ron Eid – Engineering Feasibility Lead (B-E/GEI)**
- **John Rickenbach – Environmental Lead (Rincon Consultants)**





Project Background

- **San Luis Obispo County is looking to improve long-term water supply reliability within the County**
- **Project identified in County's IRWMP to improve water supply reliability**
- **Project funded through Proposition 50 Planning Grant**





Project Goal

The goal of this project is to determine the feasibility of groundwater banking alternatives in the Paso Robles Groundwater Basin





Potential Project Benefits

- **Utilize SWP Supply to improve local water supply reliability**
- **Improve local groundwater conditions**
- **Increase dry year water supply reliability**
- **Improve local groundwater quality**
- **Provide greater flexibility in water resources management**
- **Reduce dependence on imported water supplies in below-normal years**





Project Approach

- **Evaluate Technical Feasibility**
 - **Hydrogeologic Feasibility**
 - **Engineering Feasibility**
- **Identify Other Considerations**
 - **Environmental Considerations**
 - **Institutional/Regulatory Considerations**
 - **Project Partners and Funding Opportunities**





Project Schedule

San Luis Obispo County Flood Control and Water Conservation District
 Paso Robles Groundwater Basin Feasibility Study
 Proposed Project Schedule

ID	Task Name	Start	Finish	2007												200				
				Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	Task 1 - Stakeholder Involvement Meetings	Mon 10/2/06	Mon 12/31/07	[Yellow bar spanning from Oct 2006 to Jan 2008]																
2	Groundwater Banking Sub-Committee Meeting 1	Thu 10/5/06	Thu 10/5/06	10/5	[Red diamond]															
3	Task 2 - Preliminary Engineering	Mon 10/2/06	Mon 12/4/06	[Purple bar spanning from Oct 2006 to Dec 2006]																
4	Deliverable: Preliminary Engineering Technical Memorandum	Wed 11/22/06	Wed 11/22/06	11/22	[Green triangle]															
5	Groundwater Banking Sub-Committee Meeting 2	Thu 12/7/06	Thu 12/7/06	12/7	[Red diamond]															
6	Task 3 - Initial Alternatives Development and Project Screening	Tue 11/14/06	Fri 3/16/07	[Purple bar spanning from Nov 2006 to Mar 2007]																
7	Groundwater Banking Sub-Committee Meeting 3	Thu 3/1/07	Thu 3/1/07	3/1	[Red diamond]															
8	Task 4 - Hydrogeologic Feasibility Evaluation	Fri 3/2/07	Fri 8/10/07	[Purple bar spanning from Mar 2007 to Aug 2007]																
9	Groundwater Banking Sub-Committee Meeting 4	Thu 5/3/07	Thu 5/3/07	5/3	[Red diamond]															
10	Task 5 - Engineering Analysis of Selected Banking Sites	Mon 4/2/07	Fri 8/10/07	[Purple bar spanning from Apr 2007 to Aug 2007]																
11	Deliverable: Progress Report	Fri 7/20/07	Fri 7/20/07	7/20	[Green triangle]															
12	Groundwater Banking Sub-Committee Meeting 5	Thu 8/2/07	Thu 8/2/07	8/2	[Red diamond]															
13	Task 6 - Draft Report	Fri 7/20/07	Thu 10/4/07	[Purple bar spanning from Jul 2007 to Oct 2007]																
14	Deliverable: Draft Report	Fri 9/21/07	Fri 9/21/07	9/21	[Green triangle]															
15	Groundwater Banking Sub-Committee Meeting 6	Thu 10/4/07	Thu 10/4/07	10/4	[Red diamond]															
16	Task 7 - Final Report	Fri 9/21/07	Fri 11/16/07	[Purple bar spanning from Sep 2007 to Nov 2007]																
17	Deliverable: Final Report	Fri 11/9/07	Fri 11/9/07	11/9	[Green triangle]															
18	Task 8 - Project Management and Coordination	Mon 10/2/06	Fri 12/14/07	[Green bar spanning from Oct 2006 to Dec 2007]																
19	Deliverable: Quarterly Progress Report	Fri 12/29/06	Fri 12/14/07	12/29	3/30	6/29	9/28	12/14	[Black diamonds]											





Project Deliverables

- **Preliminary Engineering Technical Memorandum (PETM)**
- **Progress Report**
- **Draft Report**
- **Final Report**





Role of Groundwater Banking Subcommittee

- **Develop an understanding of the role of groundwater banking in water resources management**
- **Provide local knowledge and experience to consulting team**
- **Provide review and comment to project deliverables**





GBSC Meetings

Meeting Number	Activities
1	Introductions, Project Goals, Review PETM outline
2	Provide comments on PETM Review initial project screening criteria
3	Review application of coarse screening criteria Identify 3 projects for further analysis
4	Review progress of the hydrogeologic and engineering feasibility analysis
5	Provide comments on Progress Report
6	Provide comments on Draft Report

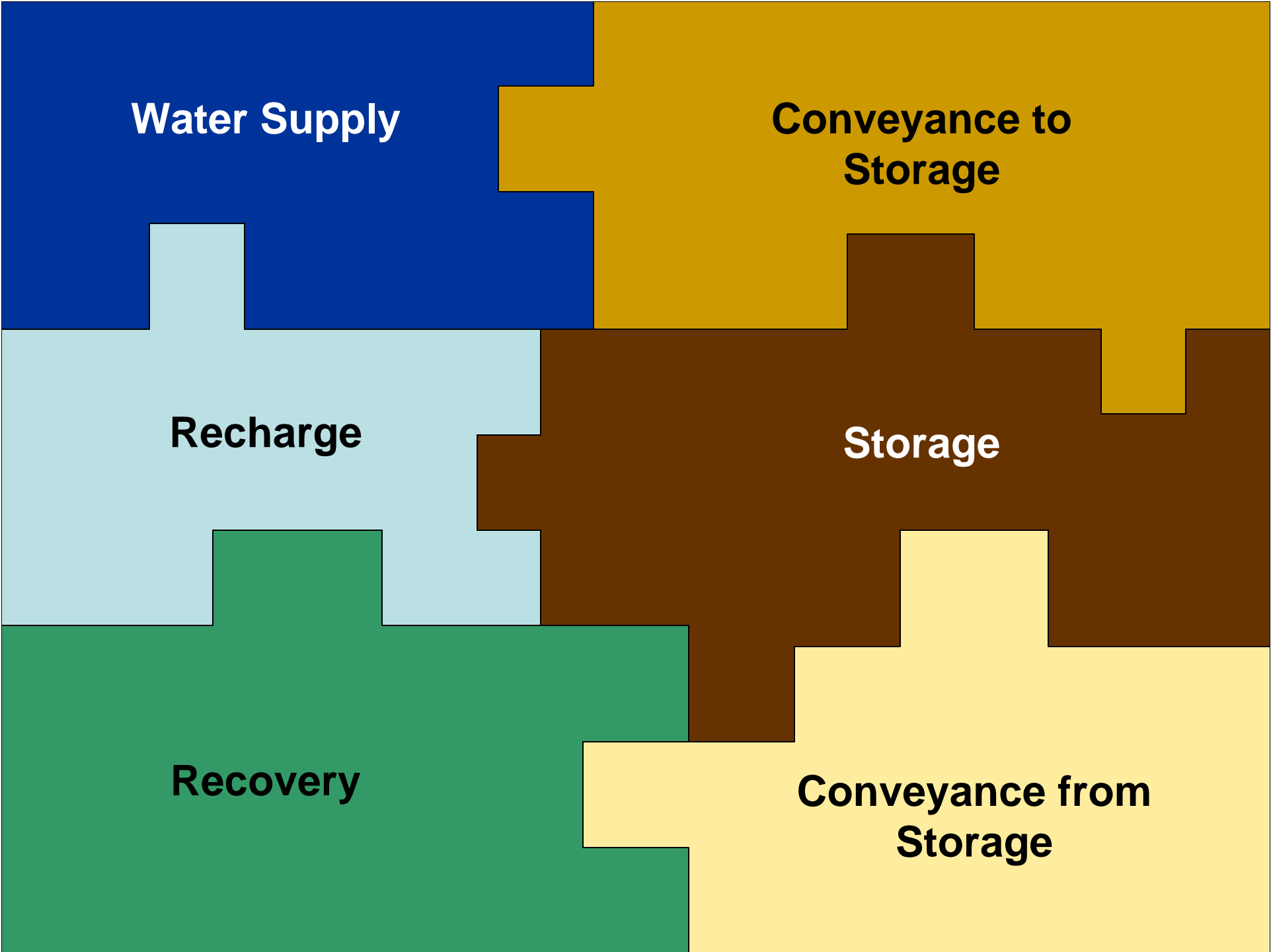




Groundwater Banking Feasibility

- **Geologic and hydrogeologic setting**
- **Available groundwater storage capacity**
- **Ability to move water in and out of the aquifer system**
- **Suitable groundwater quality**
- **Ability to deliver water to end user**







Hydrogeologic Feasibility

- **Local hydrogeologic conditions**
- **Available storage capacity**
- **Groundwater levels and flow directions**
- **Groundwater quality considerations**





Engineering Feasibility

- **Formulate groundwater banking alternatives**
- **Identify required infrastructure and operations**
- **Evaluate water supply accomplishments and infrastructure costs to compare and rank alternatives**





Other Considerations

- **Environmental Considerations**
- **Institutional and Regulatory Considerations**
- **Potential Partners**
- **Funding Opportunities**





Preliminary Engineering Technical Memorandum

- **Document project assumptions**
- **Develop common understanding**
- **Provide framework for rest of project**





Recharge Methods

- **Direct Recharge Methods**
 - **Recharge Basins/Spreading Ponds**
 - **Natural Channels**
 - **Injection**
- **In-Direct Methods**
 - **In-Lieu Recharge**





Questions ?

