

***Continued Discussion on
Enhanced Recharge Requirements for
Springflows***

***Edwards Aquifer
Recovery Implementation Program
Recharge Facility Feasibility Subcommittee***

**HDR Engineering
June 4, 2010**

Topics of Discussion

1) Trade-off Water Supplies for Bexar County Municipal and Industrial Users



Bexar M&I Trade-Off

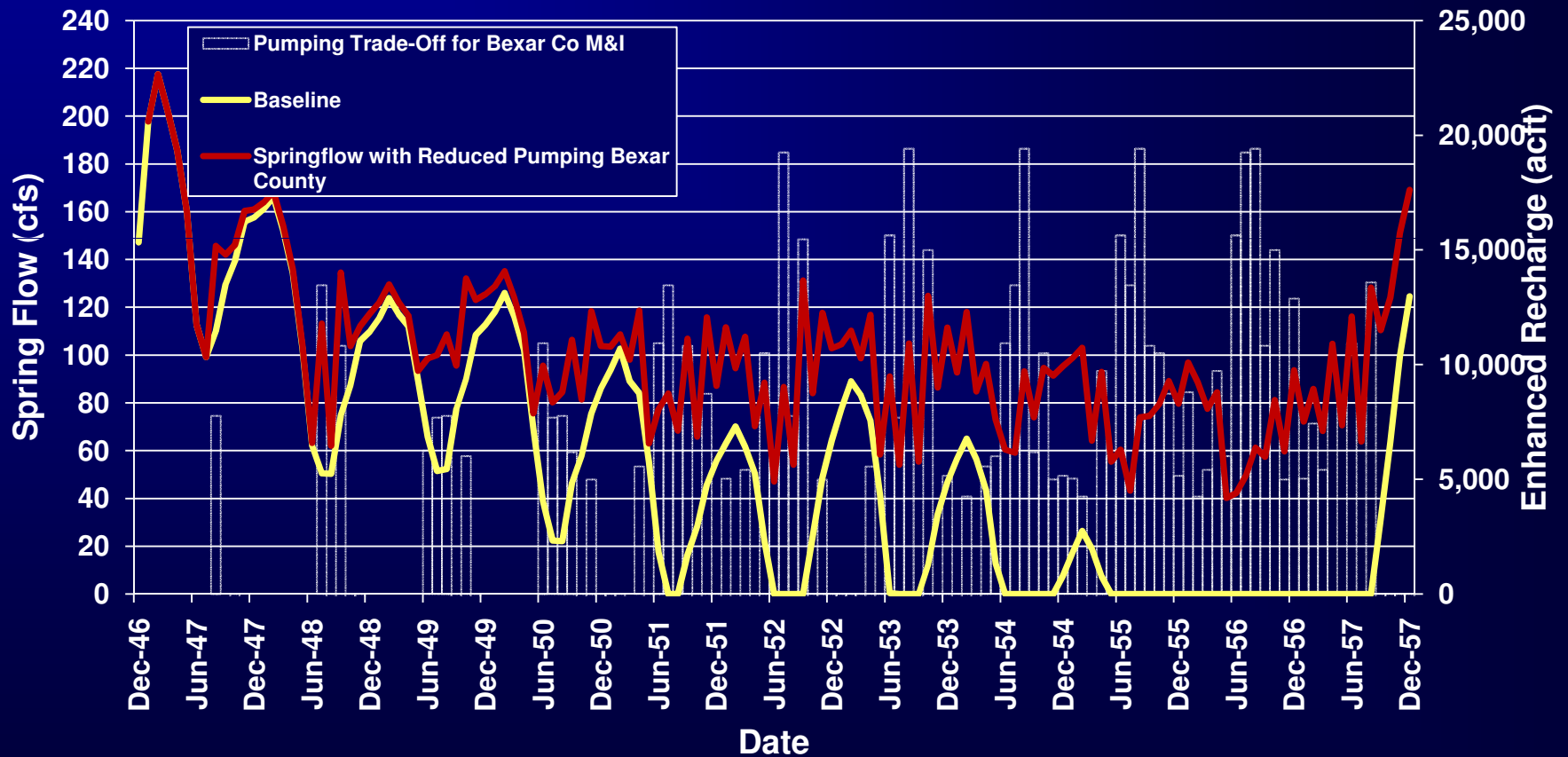
□ Approach

- Use the USGS MODFLOW Model**
- Add additional CPM stages for Bexar M&I**
- Selected Stages**

Stage	Comal Flow Range (cfs)	Permit Reduction (%)
1	225-201	20
2	200-151	30
3	150-101	35
4	100-81	60
5	80-61	75
6	<60	90

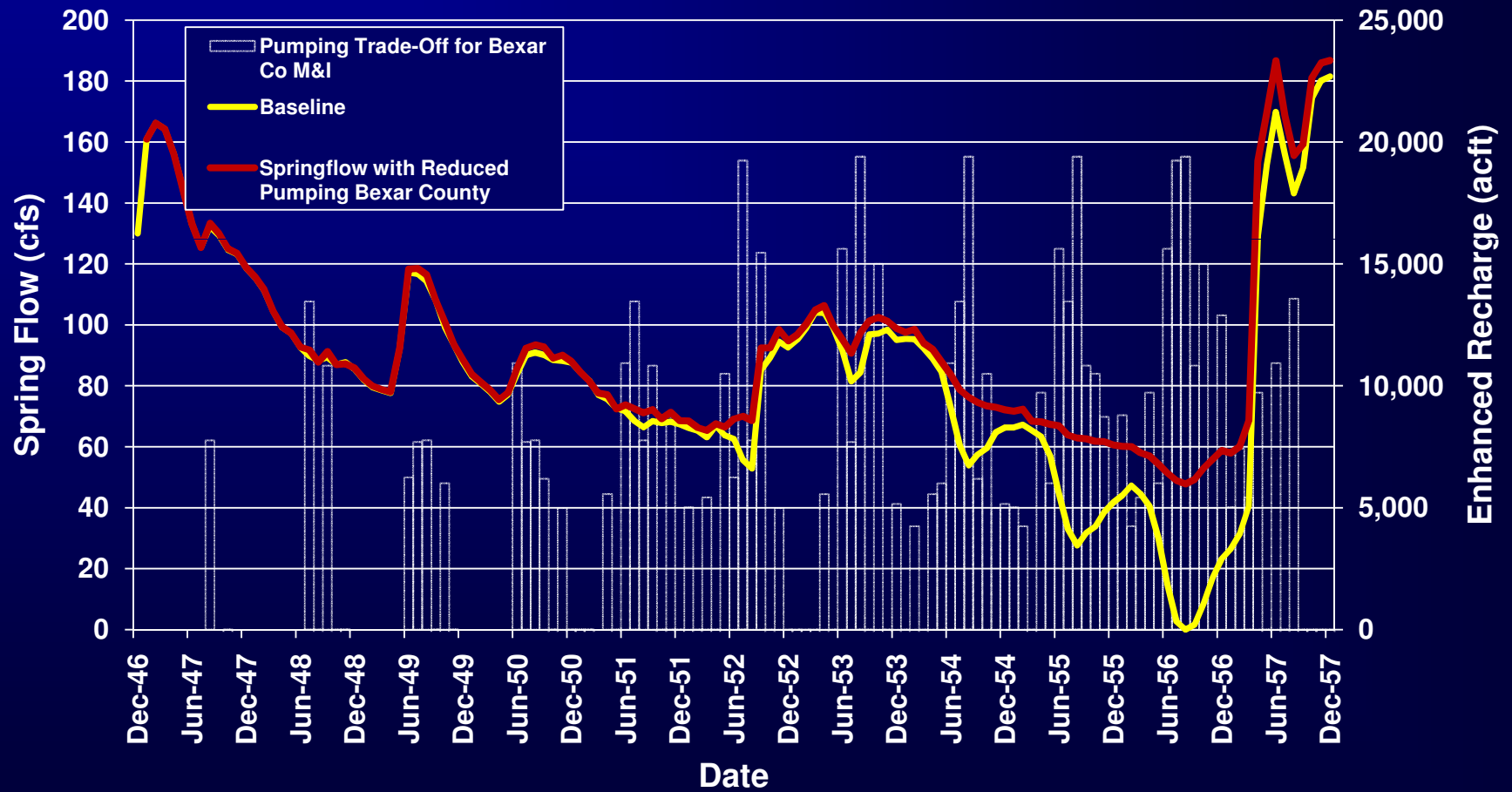
Bexar M&I Trade-offs

Comal Springs



Bexar M&I Trade-offs

San Marcos Springs



Bexar Trade-Off

Summary of Months below Thresholds

Comal Springs				
Period	0 cfs	less than 30 cfs	less than 60 cfs	less than 100 cfs
1947-1957	0	0	13	71
1947-2000	0	0	15	86
San Marcos Springs				
Period	0 cfs	less than 40 cfs	less than 52 cfs	less than 100 cfs
1947-1957	0	0	4	97
1947-2000	0	0	4	129

Bexar Trade-Off Summary of Performance

Trade-Off Pumping Reductions		625,000 acft
		FACTOR
SPRINGS	INCREASE IN FLOW	(Pumping Reductions/Increase in Springflow
Comal	364,000	1.7
San Marcos	45,500	13
Total	409,500	1.5