Harney Groundwater Rules Advisory Committee: Discussion Groups

Options for Model Management Scenarios

September 19, 2024

The following options are an initial effort to synthesize all the information from the above discussion groups into some potential scenarios that could be considered by the RAC in their advice to OWRD in which model scenarios to run. For any scenario, OWRD will need enough detail to run the model for five variables (see below). Some of the options for each variable are woven into Scenarios A-E below.

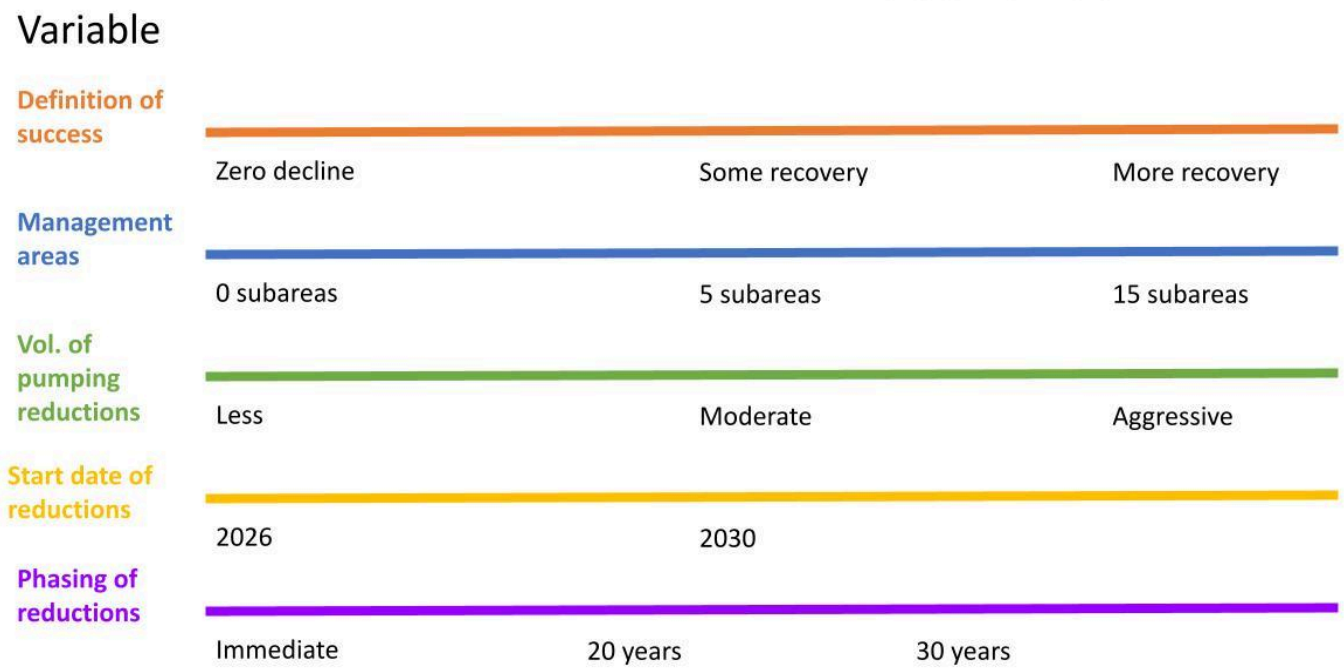

Table 4. Possible options for management scenarios (Part 1)
THIS IS A STARTING POINT FOR DISCUSSION PURPOSES ONLY

Variable/ Scenario	A. Focus on hot spots, minimize impact to small business (OWRD)	B. Balanced reductions, economic adjustment period	C. Balanced reductions, minimize impacts to ecosystem and domestic supply, economic adjustment period	D. Balanced reductions, recover supply for ecosystem and exempt uses	E. Reductions by priority date
Definition of Success	Stable (zero rate of decline) achieved ASAP in hot spots	Stable (zero rate of decline) achieved by 2060 with graduated rates of decline achieved in decadal intervals	Gradual recovery (to support springs, surface flows, and domestic wells) achieved by 2060	Rapid recovery (to support springs, surface flows, and domestic wells) achieved ASAP	Stable (zero rate of decline)
Management Areas	15 subareas	5 subareas	5 subareas	5 subareas	One basin, no subareas
Volume of pumping reductions	Pumpage reductions for 6 subareas; 9 subareas with no reduction from 2018 estimated pumpage	Pumping reductions different by subarea (less aggressive - phased in) See Table 5 below	Pumping reductions different by subarea (more aggressive - phased in) See Table 5 below	Pumping reductions different by subarea (more aggressive) See Table 5 below	Reduce pumpage by priority year (1990)
Start time and intervals of reduction	2026 start; No phasing (all reductions in 2026)	2026 with reductions in pumping phased in over a 30-yr period in 10 year intervals	2026 start for reductions phased over a 30-yr period in 10 year intervals	2030 start; No phasing (all reductions in 2030)	2030 start; No phasing (all reductions in 2030)

Table 5. Possible pumpage reduction volumes for Scenarios B, C, and D

These estimates really are guesses to cover a range of possibilities. We need something like this to guide modeling, and we don't need to agree on exact percentage reductions–we just need to give OWRD some places to start. These are just to see how groundwater might respond to actions, but not what the RAC might recommend is used for management.

5 Subareas	B. Balanced reductions, economic adjustment period	C. Balanced reductions, minimize impacts to ecosystem and domestic supply, economic adjustment period	D. Balanced reductions, minimize impacts to ecosystem and domestic supply
Weaver Springs/Dog Mountain	54% over 30 years (18% each decade)	75% over 30 years (25% each decade)	65% in 2030
Northeast/Crane Area	30% over 30 years (10% each decade)	45% over 30 years (15% each decade)	40% in 2030
Silver Creek	9% over 30 years (3% each decade)	24% over 30 years (6% each decade)	18% in 2030
Silvies	0%	9% over 30 years (3% each decade)	5% in 2030
Donner Und Blitzen	0%	9% over 30 years (3% each decade)	5% in 2030