

Exam II
(100 points)

- (10 pts) 1. Describe the possible elements of a water right "option". Under what conditions might this instrument be attractive?
- (16 pts) 2. Name and define four commonly cited goals of rate setting. What are your informed opinions about each? Are there available rate systems for achieving all of these goals in your opinion and why/not?
- (17 pts) 3. True ground water marketing, which is different than ground water access marketing, is relatively novel and not as developed as surface water markets. Should particular types of third parties be granted a role in administering proposed exchanges of ground water withdrawal rights? Apply economic concepts and define them in explaining why or why not. If your responses depend on the type of third party, explain.
- (27 pts) 4. The chairman of a regional water agency maintains that a proposed, publicly funded water canal is justified, based on agency analysis. The canal has a present value of costs amounting to \$50 million. Absent the canal, the Chair says it will cost \$100 million to obtain the same water supply increment using the next cheapest option. Moreover, absent both options, business activity will not grow by the forecast \$500 million in total annual sales. Has the agency formulated a compelling analysis?
- (30 pts) 5. Ever since a city utility revised its uniform rate to \$6.25/1000 gal. three years ago, everything has been working pretty well. Under present conditions, aggregate monthly demand for delivered water is $w = 54000p^{-0.5}$. [w units are 1000 gallons.] The present difficulty is that there has been a water supply corruption. A company that leases water to the city has apparently leased more water to various organizations than it actually owns; suits have been filed. Until something can be resolved, no more than 18000 thousand gallons can be delivered by the city to its customers. A temporary policy is required to manage the shortfall. If the only available policy is a temporary rate change, what concept best describes the increase in volumetric rate? Interpret this concept for city staff and calculate its level. What pros and cons are accompanied by this policy? What related advice do you have to offer?