

Exam II
(100 points)

- (6 pts) 1. Name and briefly describe three commonly observed goals of rate setting.
- (14 pts) 2. Name a specific ground water externality, define or explain it, and explain how this particular externality may prevent a two-party trade from settling upon an aggregately efficient transaction (in a many-party hydrologic system).
- (20 pts) 3. Of the various accounts which are officially used by U.S. authorities when evaluating federal water projects, which one(s) do you argue is/are most closely related to economically styled decision making? Are there any which are less related? Are there any which are unrelated? [Your arguments and descriptions are more heavily weighted than your immediate answers to these 3 questions.]
- (30 pts) 4. Ever since a city utility revised its uniform rate to \$4/1000 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 pipeline failure that will take one month to fix. During this time, no more than 18000 thousand gallons can be delivered through the remaining facilities of the city. While every customer can still receive water, 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?
- (30 pts) 5. A potential client has emailed to establish a meeting with you, and you are beginning this appointment with him now. He emailed that a City had called, inquiring about his potential interest in optioning some or all of his water rights to the city. He didn't want to reveal his ignorance about what an "option" is or how much "water rights" he might have, so he has not responded to the City yet. His email explained that he owns a large tract of inherited, irrigated land, but he is not a farmer. He leases all his land one year at a time to others who farm it. He recalls that he has water permits too. He has never taken money for these permits, but his land renters do irrigate. Because of his land's location, you are sure that he holds prior appropriation water rights.

During his one-hour appointment with you (\$300!), he wants you to describe what an option is and he wants your advice about what he should do. You correctly surmise that he is a smart individual and he will wish additional representation if his visit with you is informative.

Start talking. Begin by listing the few subjects you'd like to cover during your hour.