Exam II

(100 points)

(6 pts) 1. What type of policy instrument is water banking? Explain how banking operates.

(18 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?

(20 pts) 3. Completely quantify and describe a proposed trade of surface water between 2 ordinary diverters, both with return flows of 50%, where this trade would benefit streamflow along a particular river segment. [Include sufficient quantitative detail to indicate that this trade would add a certain amount to the segment's streamflow.] How is it that this situation qualifies as a market failure and what type (name it) of market failure is this? Identify a policy remedy.

(26 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 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?

(30 pts) 5. Your state occasionally funds water projects, and all such decisions are made politically without formal analyses of benefits or nonconstruction costs. Now, lawmakers are considering adopting a requirement that CBA be performed for every proposed project, but they are not yet requiring that future projects "pass" a CBA. There is ongoing discussion about the merits of this proposal. (A) Some say this is proposal is a good thing. (B) Some say it is going to be a waste of time and agency dollars. (C) Some argue that such decisions cannot be properly resolved by economic criteria.

In the context of the above situation, what would you tell people about the prime water-based task addressed by CBA? How might proposed projects and unanalyzed alternative policies be affected by these CBAs? What do you have to say about claim (C) above? On net, is this new law going to be a positive step?