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ECON 4231, Briefing Paper #2

5 March 2017

Non-Partisan Economic Analysis of SB17-117

SB17-117 seeks to expand agricultural water rights to the hemp industry. The bill would recognize industrial hemp as an agricultural product and would designate water use rights for the cultivation of hemp for commercial or research development purposes.

Industrial hemp is defined in Colorado Revised Statutes 35-61-101 as any plant of the genus *cannabis* containing a THC (the psychoactive ingredient in marijuana) concentration of 0.3 percent or less, as opposed to the closely related marijuana plant which contains THC levels above 0.3 percent. The plant is regarded as an important crop due to its multi-functional uses ranging from an input resource in textiles and building insulation to livestock feed, and can even be converted into biofuel.[1]

The growth and consumption of hemp has long been illegal in the United States, and until recently in Colorado, because of its close relation to the narcotic, cannabis. Under current state law, industrial hemp is not subject to the same water rights as other agricultural products. The purpose of SB17-117 is to recognize industrial hemp as a product of the Colorado economy and to remove economic barriers to the newly emergent market.

Agricultural water rights give agricultural producers priority in appropriating stream water for irrigation purposes.[2] Water is a scarce resource in Colorado's semi-arid climate, and

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[1] https://www.hort.purdue.edu/newcrop/ncnu02/v5-284.html

[2] http://water.state.co.us/DWRIPub/DWR%20General%20Documents/SynopsisofCOWaterLaw.pdf

the State's legal priority system for appropriation of water has a significant impact on many areas of the economy– specifically the mining industry and the agricultural industry. The purpose of agricultural water rights is to ensure that the agricultural market in Colorado can thrive by prioritizing input materials to the industry.

While it is intuitively appealing to designate the same water rights to hemp production as other agricultural markets benefit from (e.g. peaches, apples, etc), a larger reform of Colorado's water rights system is necessary to achieve an economically optimal allocation of water resources. SB17-117 is just a piece of a legislation in a larger, flawed water law system.

In effect, Colorado's priority system is means of picking favorites. Scarce water resources are not allocated to who values them the most. Contrarily, they are allocated to who the government values the most. This is not an economically sound system.

The governmental role in the water industry should be restricted to aiding the structuring of the water distribution system. With this responsibility, the State can ensure a competitive and fair market where no single institution has price control over such a vital resource. To achieve this the State should retain the role of defining property rights for natural water resources.

However, the State does not need to legally mandate the allocation of water resources with a preference based system. In the absence of a preference based system, water resources will be allocated in accordance with how suited a certain product is for Colorado's natural conditions. Thus, if Colorado's climate caters well to agricultural products the State need not seek additional measures to protect the agriculture industry.

Resources are allocated to their highest valued uses when prices can reflect scarcity. In a privatized market the price of water would be dependent on the scarcity of its supply, thus allocating water resources to maximize efficiency. Colorado's climate suggests that the highest valued use for scarce water resources is the cultivation of crops that grow well in a semi-arid climate (these crops can grow with relatively less effort and require less resources beyond the natural environment).

In a privatized system water will be properly allocated to hemp growers if industrial hemp is a valued use of Colorado's. More specifically, if revenue from industrial hemp is sufficient then hemp growers will be able to outbid other users for water with sufficient revenue. Privatization will allow an optimal amount of water to be designated to hemp growers.

The amount of water allocated to hemp growers in a privatized market will be determined by the demand for hemp as well as the marginal productivity of water. If hemp is considered an important input resource for other markets then hemp growers will see an increase in the price of hemp and will have the ability to purchase more water to cultivate its growth until the marginal cost of water exceeds the marginal revenue. Likewise, as additional units of water exhibit decreasing ability to cultivate additional more hemp crops, hemp growers will be less inclined to purchase water.

If Colorado's climate does not serve the cultivation of hemp well, then hemp growers will pay excessively for water and will likely see losses in profit. Thus, individuals will likely choose not to grow hemp in Colorado, leaving more water for other uses that are more profitable and better suited for Colorado's economy. To put it simply, the hemp industry will thrive if it is fit for Colorado's climate and economy without government intervention.

Mandating rights for hemp growers equal to those of other agricultural producers is not an egregious position. The Colorado General Assembly should take measures to pass SB17-117 because equalized agriculture water rights is slightly preferable to the status quo. However, the SB17-117 begs a much deeper need for a reform of water rights.

The allocation of water should not depend on the government's preferences. Since water is a scarce resource in Colorado, it is imperative that it be used efficiently. This can only be achieved if water is transformed into a privatized market where price can reflect scarcity. Though a politically difficult task, the General Assembly should seek further legislation towards privatizing the water industry.