

**Water Conservation Incentives:  
Options for Federal Tax Law Changes**

**A White Paper**

**Presented to**

**Pete V. Domenici  
United States Senator**

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# **Water Conservation Incentives Options for Federal Tax Law Changes**

## **Executive Summary**

### **Introduction**

Increasing demands of water by the non-agricultural sector, especially in the West, has stimulated an on-going discussion of ways to encourage water conservation. Given that the majority of water rights ownership is in the hands of the agricultural sector, the problem is to encourage water conservation in that sector and transfer those water savings to the non-agricultural sector. For this paper water conservation is defined as the implementation of procedures that would allow a redistribution of rates of use of water over time.

### **Water Use in the West**

Over 65 percent of the water withdrawn in the Western States is used by agriculture. Nearly 81 percent of the farms that withdrew water were small farms, while 66 percent of the applied water was done by large farms. If any substantial water is to be reallocated from the agricultural sector, it must come from large farms. While two-thirds of the water used in the West is surface water, it must be remembered that ground water and surface water are connected and that one can not think of them as separate sources.

### **Water Law in the West**

There are five rules of water law that are followed by the states. The rules are 1) Old Dominion Rule, 2) Reasonable Use Rule, 3) the Correlative Rights Doctrine, 4) the Restatement (second) of Torts Rule, and 5) Prior Appropriation (Water Systems Council). Some states use a combination of two or more of the doctrines. The Prior Appropriation Rule dominates water law in the western states. Under this rule, the first individual to divert water for beneficial use has priority of right.

These rules determine who has the right to use existing water, who has the right to conserved water, and whether or not conserved water can be transferred to other users. Any water conservation rules or programs instituted at the federal level must take into consideration the fact that there is not one water rule in the west, that the federal program should not interfere with states rights, and that the programs may have varying effects in each of the states. In addition there are many interstate compacts that could affect the application of federal rules.

### **Conservation Programs and Their Use**

There are a number of federal programs and policies in existence that promote improved water management. Most programs include cost sharing and technical assistance. There is a limit to the amount of funds allocated to each of the programs and a limit to the

amount of funds any one eligible participant may receive. It should be noted that water conservation is usually only one of the goals of the programs.

A survey by the Department of Agriculture in the late 1990's identified those farm operators that participated in cost-share programs and the barriers that existed for participation. More owners of small farms by far took advantage of EQIP cost-share programs than any other size farm. As the size of the farm increased, the number of farms receiving funds diminished. An opportunity exists for policy makers to educate owners about possible improvements that would not include a risk of reduced or poor quality crop yield and to target landlords who do not participate in the program. The percentage of owners identifying barriers to participation was the lowest for the largest firms. Besides the possibilities that the amount of funds a particular participant can receive and that the administrative requirements of the programs may be burdensome, it is not clear why large firms do not participate.

### **When Water Conservation Is Not Water Conservation**

One must be careful to recognize that the water conservation practices of a particular farmer may not lead to a net increase in water that can be used by some other entity.

Programs that give incentives to conserve surface water but allow the use of ground water may not result in a net gain. Programs that let a farmer bank surface water rights and then to use ground water to irrigate crops to maintain production, does not result in a net gain in water for other uses. Within irrigation districts all water flows are important. Given the particular importance of return flows, some water conservation policies, while encouraging a more efficient use by one farmer, may result in problems for other users.

Water conservation policies must take into consideration the hydrology of the watershed and the connections between in-stream flows and ground water aquifers at the location of application. This makes general policy recommendations difficult to make given the different hydrologic conditions existing in the west.

### **Tax Laws Relevant to Water Conservation and Suggestions for Change**

Those engaged in the business of farming may deduct certain expenses pertaining to soil and water practices for the prevention of erosion of land used in farming. The deduction of expenses cannot be more than 25 percent of the gross income from farming. Any excess deductions over the 25 percent limit can be carried forward into future years. Payments received from government cost-share programs must be included in income unless the payments meet a three-prong test. The payments must have been for capital expenses, the payments must have not substantially increase income, and that the Secretary of Agriculture certifies that payments were used for particular purposes.

**Policy Suggestion 1:** Allow a higher deduction of expenses.

**Policy Suggestion 2:** Make it easier to deduct government payments from income.

The income from the short-term lease or sale of water rights is treated as ordinary income. The income from the long-term lease or sale of water rights is considered capital gains and, therefore, is taxed at a lower rate. It is not clear how the income from the lease or sale of water rights over the intermediate term is classified, it could be normal income or capital gains.

**Policy Suggestion 3:** Make it clear that the income from the lease or sale of water rights over the intermediate term is classified as capital gains.

The federal programs now being offered do not speak directly to the conservation of water. Most have multiple objectives. Investment tax credits are not available for water conservation projects at this time.

**Policy Suggestion 4:** Reintroduce investment tax credits directly related to water conservation.

### **Policy Challenges**

The adoption of any of the policy suggestions listed above provides particular challenges for implementation.

The States control water ownership, not the federal government. Each state is different in terms of water law and institutions. Any change in federal law will have different effects in each of the states.

Water conservation is popular, but it must be remembered that increased water efficiency at the user level does not necessarily mean more water at the system level. Water conservation policies must take into consideration the hydrology of the watershed and the connections between in-stream flows and ground water aquifers at the location of application. This makes general policy recommendations difficult to make given the different hydrologic conditions existing in the west.

In order to transfer large quantities of water from the agricultural sector to other sectors, policy must target the large users of water. Since it is the large farms that withdraw and apply the majority of water, policy will have to be aimed at big agriculture. This may be politically difficult during a period of time when subsidies to large farmers are being questioned.

# **Water Conservation Incentives Options for Federal Tax Law Changes**

## **Introduction**

Recent socioeconomic changes and drought conditions, particularly in the West, have stimulated an on-going discussion of ways to encourage water conservation. The movement of people from rural to urban areas has increased the demand for water for residential and industrial uses. There has also been an increase in water demand for recreation, the protection of endangered species, the maintenance of ecosystem health, and the satisfaction of Native American trust responsibilities. All this is occurring in a world where the majority of water rights ownership is in the agricultural sector. Assuming that these other uses have higher benefits than agricultural use, the problem is how to encourage water conservation in agriculture and then to transfer those water savings to be meet the demands for water in the non-agricultural sectors.

This paper will first provide a definition of water conservation and review water use and water law in the Western States. Second, a description of existing conservation programs and how they have been used will be provided. The third section provides a discussion of when water conservation practices do not save water. In the fourth section, tax laws relevant to water conservation will be described along with some suggestions for change. The paper will end with some overall conclusions.

## **What is Meant by Water Conservation?**

The term water conservation may mean different things to different people. A first impression may be that water conservation results in less water being used by a particular consumer. Given the flow nature of the water resource and the connection between users, a decrease in use by one consumer does not necessarily mean the possible increase in use by another consumer. For purposes of this study water conservation implies the implementation of procedures that would allow a redistribution of rates of use of the resource over time (Black). A conservation program must take into consideration the hydrology of the watershed, the water laws applicable to the location of the program, and the institutions affected by the program.

## **Water Use in the West**

Table 1 provides information on water withdrawals by water-use category for the year 2000 for the Western States and the rest of the United States. For the purposes of this report the western states are: Arizona, California, Colorado, Idaho, Kansas, Montana, North Dakota, Nebraska, Nevada, New Mexico, Oklahoma, Oregon, South Dakota, Texas, Utah, Washington, and Wyoming.

The distribution of water withdrawals is distinctly different for the Western States versus the rest of the United States. The majority of water withdrawals are done by the agricultural sector in the Western States and for thermoelectric power cooling for the rest

of the U.S. In the Western States, in order to meet the increasing demand for water from non-agricultural sectors, water will need to be reallocated from the agricultural sector.

| <b>Table 1</b>  |                        |                         |                              |                         |
|---|------------------------|-------------------------|------------------------------|-------------------------|
| <b>Western States and the Rest of the United States</b>                             |                        |                         |                              |                         |
| <b>Water Withdrawals</b>  |                        |                         |                              |                         |
| <b>By Water-use Category</b>  |                        |                         |                              |                         |
| <b>2000</b>   |                        |                         |                              |                         |
| <b>Category</b>   | <b>Western States</b>  |                         | <b>Rest of United States</b> |                         |
|   | <b>Million Gal/Day</b> | <b>Percent of Total</b> | <b>Million Gal/Day</b>       | <b>Percent of Total</b> |
| Public Supply   | 17,556                 | 9.81                    | 25,744                       | 11.23                   |
| Domestic  | 1,011                  | .56                     | 2,579                        | 1.13                    |
| Irrigation  | 117,166                | 65.47                   | 18,834                       | 8.65                    |
| Livestock   | 1,149                  | .64                     | 611                          | .27                     |
| Aquaculture   | 2,645                  | 1.48                    | 1,055                        | .46                     |
| Industrial (fresh)  | 2,876                  | 1.61                    | 15,624                       | 6.82                    |
| Industrial (saline)   | 966                    | .54                     | 314                          | .14                     |
| Mining (fresh)  | 597                    | .33                     | 1,413                        | .62                     |
| Mining (saline)   | 1,346                  | .75                     | 144                          | .06                     |
| Thermoelectric (fresh)  | 17,586                 | 9.83                    | 118,414                      | 51.67                   |
| Thermoelectric (saline)   | 16,040                 | 8.96                    | 43,460                       | 18.96                   |
|   |                        |                         |                              |                         |
| <b>Total</b>  | <b>178,968</b>         | <b>100.00</b>           | <b>229,193</b>               | <b>100.00</b>           |
| May not sum to totals due to rounding errors.                                       |                        |                         |                              |                         |
| Source: <i>Estimated Use of Water in the U.S. in 2000</i> - U.S. Geological Service |                        |                         |                              |                         |

While most irrigated farms in the west in 1997 were small farms, large farms accounted for most farm water use (see Table 2). Nearly 81 percent of irrigated farms were small (less than \$250,000 in sales). Large farms (greater than \$250,000 in farm sales) were responsible for 66 percent of total farm water applied (*Farm and Ranch Irrigation Survey, (1998)*). If any substantial amount of water is to be reallocated from the agricultural sector, it must come from the large farms.

The main type of water used in the Western States is fresh water. Almost two-thirds of the fresh water used is surface water and the rest is obtained from ground water aquifers (see Table 3). One must be careful not to think of these water sources as distinct. Surface water sources, in most cases, replenish ground water aquifers. Changes in the use of one source may affect the other source.

| <b>Table 2</b><br><b>Number of Farms and Total Water Applied</b><br><b>Western States</b><br><b>1997</b>   |                                |         |                                 |         |                                 |         |                                 |         |
|--|--------------------------------|---------|---------------------------------|---------|---------------------------------|---------|---------------------------------|---------|
|  | Small Farms                    |         | Medium Farms                    |         | Large Farms                     |         | Largest Farms                   |         |
|  | number                         | percent | number                          | Percent | number                          | percent | number                          | percent |
| <b>Total number of farms</b>   | 95,933                         | 65.2    | 22,910                          | 15.6    | 14,251                          | 9.7     | 13,996                          | 9.5     |
| <b>Total water applied</b>   | 13,924.7<br>acre ft.<br>(1000) | 18.3    | 11,887.7<br>acre feet<br>(1000) | 15.6    | 13,536.3<br>acre/feet<br>(1000) | 17.8    | 36,834.9<br>acre feet<br>(1000) | 48.4    |
| Small farms (sales < \$100,000), medium farms (\$100,000<sales<\$250,000), Large farms (\$250,000<sales<\$500,000), and largest firms (sales>\$500,000)<br>Source: <i>Farm and Ranch Irrigation Survey, (1998)</i> , U.S. Department of Agriculture. |                                |         |                                 |         |                                 |         |                                 |         |

| <b>Table 3</b><br><b>Western States</b><br><b>Water Withdrawals - 2000</b><br><b>By Source and Type</b><br><b>(million gallons per day)</b> |              |               |         |
|---|--------------|---------------|---------|
|   | Ground Water | Surface Water | Total   |
| <b>Fresh</b>  | 52,825       | 107,666       | 160,518 |
| <b>Saline</b>   | 1,173        | 17,167        | 18,384  |
| <b>Total</b>  | 54,046       | 124,886       | 178,968 |
| Source: <i>Estimated Use of Water in the U.S. in 2000 - U.S. Geological Service</i>   |              |               |         |

### Water Law in the West

In order to talk about the reallocation of water, especially in the west, one needs to ask who owns the water. There are five rules of water law that are followed by the states. The rules are 1) Old Dominion Rule, 2) Reasonable Use Rule, 3) the Correlative Rights doctrine, 4) the Restatement (second) of Torts Rule, and 5) Prior Appropriation (Water Systems Council). Some states use a combination of two or more of the doctrines. Table 4 indicates what rule is used in the various states.

Under the Absolute Dominion Rule a user can divert water regardless of how it may affect other possible users. The Reasonable Use Rule allows diversion and use as long as the use is not wasteful or for off-site use. The Correlative Rights Doctrine is based on the Reasonable Use Rule. It allows protection to a water transporter from wasteful use by others and allows the court to determine fair share of water during times of insufficient supply. The Restatement of Torts Rule allows the pumping of groundwater for beneficial use unless it lowers the water table, takes an unfair share of the annual supply, or it has a

substantial effect on a watercourse or lake. The Prior Appropriation Rule dominates water law in the western states. Under this rule, the first individual to divert water for beneficial use has priority of right (Water Systems Council).

| <b>Table 4<br/>Water Rights Doctrine<br/>Western States</b> |                                       |  |  |  |   |
|---|---------------------------------------|--|--|--|---|
|   | <b>Rule</b>                           |  |  |  |   |
|   | <b>Absolute<br/>Dominion<br/>Rule</b> | <b>Reasonable<br/>Use Rule</b>             | <b>Correlative<br/>Rights<br/>Doctrine</b> | <b>Restatement<br/>of Torts<br/>Rule</b> | <b>Prior<br/>Appropriation</b>  |
| <b>States</b>   | Texas                                 | Arizona<br>Nebraska<br>Oklahoma<br>Wyoming | California<br>Nebraska                     |  | Colorado<br>Idaho<br>Kansas<br>Montana<br>Nevada<br>New Mexico<br>North Dakota<br>Oregon<br>South Dakota<br>Utah<br>Washington<br>Wyoming |
| Source: Water Systems Council                               |                                       |  |  |  |   |

These rules determine who has the right to use existing water, who has the right to conserved water, and whether or not conserved water can be transferred to other users. They are also important in determining the total effect on the system when water is transferred between users.

Any water conservation rules or programs instituted at the federal level must take into consideration the fact that there is not one water rule in the west, that the federal program should not interfere with states rights, and that it may have varying effects in each of the states. In addition there are many interstate compacts that could affect the application of federal rules.

### **Existing Water Conservation Programs**

There are a number of federal programs and policies in existence that promote improved water management. Most programs include cost sharing and technical assistance. The Federal Agriculture Improvement Act (FAIR) of 1996 established the Environmental Quality Incentives Program (EQIP). EQIP is the main source of assistance through the U.S. Department of Agriculture. EQIP provides cost-share and incentive programs for eligible structural and management practices. There is a limit to the amount of funds allocated to the program and the amount of funds any one eligible participant may

receive. It should be noted that water conservation is only one of the goals of this program.

The U.S. Department of the Interior's Bureau of Reclamation also provides cost-share programs for irrigation water management. While the Bureau of Reclamation programs are mainly targeted at Irrigation Districts and off-farm delivery systems, some limited funding is provided for on-farm water conservation measures.

Technical assistance on how a landowner can improve water quality, conserve both ground and surface water, reducing soil erosion, and improving rangeland is provided by a number of agencies and departments. The U.S. Department of Agriculture's Natural Resource Conservation Service (NRCS) provides technical assistance through local conservation districts. The Bureau of Reclamation provides assistance to those individuals receiving federal project water.

In addition, almost all states have some programs that encourage water conservation.

### **Use of Water Conservation Programs**

In 1998, the National Agricultural Statistical Service of the U.S. Department of Agriculture conducted a survey of the characteristics of irrigated farms in the Western States. The Economic Research Service of USDA summarized the data. The purpose of the survey was to understand the impact of cost-share programs then in existence.

Data were collected on various topics and tabulated with respect to farm size. Farm size was based on the amount of farm sales. Small farms had sales totaling less than \$100,000, medium farms had sales from \$100,000 to less than \$250,000, large farms has sales from \$250,000 to less than \$500,000, and very large farms had sales over \$500,000. Table 5 provides a summary of some of the data collected from that study.

As was noted earlier, the majority of farms are small farms and the number of farms in each class size gets smaller. What may not be expected is that over 48 percent of applied water is used by the largest firms. Of particular interest is which farms have taken advantage of EQIP cost-share programs. More owners of small farms by far took advantage of EQIP cost-share programs than any other size of farm owners. As farm sales increase the number of farms receiving EQIP funds diminished. Substantial savings in water may be possible if large farms are encouraged to participate in water conservation programs.

The question of why more owners of farms did not use these funds was asked in the survey. There were a number of barriers to conserving water cited. The barriers were:

1. have not investigated improvements
2. risk of reduced yield or poorer quality crop yield
3. physical field/crop conditions limiting system improvements
4. improvement costs greater than benefits

5. lack of financial ability
6. lack of landlord participation in cost sharing irrigation improvements
7. uncertainty about future water availability
8. will not be farming in the near future
9. other reasons

The number and percentage of farm owners who answered affirmatively to any of these barriers in presented in Table 5.

|   | <b>Small Farms</b>             |                | <b>Medium Farms</b>             |                | <b>Large Farms</b>              |                | <b>Largest Farms</b>            |                |
|---|--------------------------------|----------------|---------------------------------|----------------|---------------------------------|----------------|---------------------------------|----------------|
|   | <b>number</b>                  | <b>percent</b> | <b>number</b>                   | <b>Percent</b> | <b>number</b>                   | <b>percent</b> | <b>number</b>                   | <b>percent</b> |
| Total number of farms   | 95,933                         | 65.2           | 22,910                          | 15.6           | 14,251                          | 9.7            | 13,996                          | 9.5            |
| Total water applied   | 13,924.7<br>acre ft.<br>(1000) | 18.3           | 11,887.7<br>acre feet<br>(1000) | 15.6           | 13,536.3<br>acre/feet<br>(1000) | 17.8           | 36,834.9<br>acre feet<br>(1000) | 48.4           |
| Receiving EQIP payments   | 8,875                          | 57.3           | 3,044                           | 19.7           | 1,767                           | 10.8           | 1,892                           | 12.2           |
| Not investigated improvements   | 24,860                         | 74.2           | 4,710                           | 14.1           | 1,818                           | 5.4            | 2,123                           | 6.3            |
| Risk of reduced yield   | 12,940                         | 69.2           | 2,274                           | 12.2           | 1,738                           | 9.3            | 1,746                           | 9.3            |
| Physical field conditions   | 8,016                          | 48.0           | 4,166                           | 24.9           | 2,356                           | 14.1           | 2,164                           | 13.0           |
| Costs greater than benefits   | 21,899                         | 62.5           | 5,488                           | 15.7           | 3,436                           | 9.8            | 4,237                           | 12.1           |
| Lack of financial ability   | 22,090                         | 64.1           | 6,053                           | 17.6           | 3,369                           | 9.8            | 2,973                           | 8.6            |
| Lack of participation by landlord   | 3,891                          | 36.5           | 2,506                           | 23.5           | 2,044                           | 19.2           | 2,206                           | 20.7           |
| Source: <i>Farm and Ranch Irrigation Survey, (1998)</i> , U.S. Department of Agriculture. |                                |                |                                 |                |                                 |                |                                 |                |

A number of conclusions can be derived from the survey. First of all there is an information problem. A number of owners have not investigated the possibility that improvements could increase water conservation. An opportunity exists for policy makers to educate these owners about possible improvements that would not include a risk of reduced or poor quality crop yield. There is also the lack of landlord participation in a cost sharing program. Either the landlord does not know about the programs or the reason for not participating could be included in one of the other categories.

Of most interest for this report is that some farm owners think the improvement costs are greater than the benefits received or they lack the financial ability to participate. This may be case if the farm owner can not capture the entire benefits of water conservation efforts. If the owner had full rights to the water saved, and could sell those rights, benefits might outweigh the costs. It should also be noted that the percentage of owners identifying barriers to using cost-share funds was the lowest for the largest firms. This may be due to the limits set on the amount of funds a particular participant may receive and the administrative requirements of the program.

These programs are not specifically constructed to provide general incentives for water conservation. While the programs include incentives for water conservation, the primary objectives may be something else entirely. The programs are also limited by the amount of available funding, requirements for participation, and the types of practices allowed. Therefore, administrative requirements and limits on benefits may also be deterrents to participation.

### **When Water Conservation Is Not Water Conservation**

Most of the federal programs provide technical advice on water conservation practices. One must be careful to recognize that the water conservation practices of a particular farmer may not lead to a net increase in water that can be used by some other entity.

Of importance is the hydrology of the area in which the farmer is operating. Obviously there is a connection in most areas of the west between surface and ground water. Programs that give incentives to conserve surface water but allow the use of ground water may not result in a net gain. Programs that let a farmer bank surface water rights and then to use ground water to irrigate crops to maintain production, does not result in a net gain in water for other uses (Green and Hamilton).

Within irrigation districts all water flows are important. To deliver a certain acre feet of water to a user more than that amount must be diverted from the source. The rest returns to the source or is used by others downstream. And the amount that is applied to a particular parcel of land is not necessarily the amount that is used. Some of the applied amount drains off the land and is available for use by others downstream. This idea of return flow allows the number of acre feet of irrigation to be a multiple of a given acre feet of diversion. For example, a diversion of 495 acre feet for delivery of 271 acre feet to a first set of users will allow, with return flows (the rest of the diversion plus drainage from application), a delivery of 376 acre feet to another set of users. Given those return flows, delivery can be made to a third set of users of a total of 60 acre feet. In this example deliveries have totaled 707 acre feet with a diversion of only 495 acre feet. Irrigation districts are very good at determining the amount of diversion necessary to provide water to end users while maintaining an in-stream flow to be delivered to yet another set of users (King and Maitland).

Given the importance of return flows, some water conservation policies, while encouraging a more efficient use by a farmer, may result in problems for other users. A more time-efficient application of water to crops, allows the crops nourishment when most needed. This means that more water is taken in by the crops, and less return flows are generated. Even if the same amount of water is applied, it results in better production but less return flows and maybe less water for other users.

A typical situation in the west is when water is diverted from a stream or river for the purposes of irrigation. That stream or river is also replenishing a ground water aquifer and provides for more irrigation down stream. Water is diverted from the river for irrigation and the ground water aquifer is also being pumped for irrigation purposes. The diverted water is being delivered through a system of unlined earthen canals. As water moves along the canals some water is lost as it percolates into the underground aquifer. A policy of lining of the canals would mean that less water would have to be diverted to provide end users with irrigation water. This could be interpreted as conserving water. But the lining of the canals will also prevent the replenishment of the aquifer from diverted water. The river would now have to replenish the underground aquifer, providing water to those using ground water, and reducing down stream flow. In the end the net gain in water may be zero.

This implication of these examples is that increased water efficiency at the user level does not necessarily mean more water at the system level. Water conservation policies must take into consideration the hydrology of the watershed and the connections between in-stream flows and ground water aquifers at the location of application. This makes general policy recommendations difficult to make given the different hydrologic conditions existing in the west. Only when there is no connection between the flow of the river and ground water use or distinct ground water aquifers, would individual savings increase the amount of water for other uses.

### **Tax Laws Relevant to Water Conservation**

There are two issues of particular interests in the present tax code. The first is the deduction of soil and water conservation expenses and the treatment as income of most government payments for approved conservation practices. The second is the tax treatment of income received for the transfer of water from one entity to another.

As explained in the Farmer's Tax Guide (Publication 225, Department of the Treasury, Internal Revenue Service), those engaged in the business of farming may deduct certain expenses pertaining to soil and water practices for the prevention of erosion of land used in farming. The deduction of expenses cannot be more than 25 percent of the gross income from farming. Any excess deductions over the 25 percent limit can be carried forward into future years. Payments received from government cost-share programs must be included in income unless the payments meet a three prong test. The payments must have been for capital expenses, the payments must have not substantially increase income, and that the Secretary of Agriculture certifies that payments were used for particular purposes. This ruling is not directly attached to water conservation in the sense

that it is meant to decrease the use of water to allow a reallocation to another user. It is tied to the prevention of land erosion. It does not give direct incentive for water conservation.

Most states allow the lease or outright sale of water rights both in the short run and the long run. If water rights are leased/sold for the short run, the revenues received are considered ordinary income. If the water rights are sold outright or for a long period of time, the revenues can be deemed subject to capital gains taxation. Capital gains are taxed at a lower rate than ordinary income. The sale or lease of water rights for the intermediate time period causes some problems (Kuhnle). If the revenues received were deemed capital gains then the owner would have an additional incentive to trade the water rights because of the lower tax rate.

### **Possible Federal Tax Law Changes**

Since federal tax law determines the amount and types of income received by a farm owner, changes in that law may give incentives to change behavior. Modifications in the tax provisions of existing laws that allow a decrease in taxable income would give individuals incentives to participate because it would lower the amount of tax payable to the federal government.

The amount of expenses pertaining to soil and water practices for the prevention of erosion of land that could be deducted each year could be increased to over the 25 percent limit and the three pronged test could be relaxed. This would increase expenses for a particular year and increase the possibility that the individual would not have an increase in income (by the amount of government payments) because of participation in any of the numerous cost-share programs.

One of the reasons that an individual would be willing to save water is to take advantage of selling that water to another individual. If the amount of moneys received were determined to be in the nature of capital gains, that income would be taxed at a lesser rate than ordinary income. A clarification of the definition of income from water sales would be necessary.

All the federal programs listed above do not speak directly to the conservation of water. The programs have multiple objectives such as: reducing runoff; reducing soil and wind erosion; contributing to flood control; improving water quality; and preserving and maintaining wildlife habitat. Included in the list are water conservation measures. Tax laws that would be directly applicable to water conservation (in the sense of less water used to be reallocated to other users) would give direct incentives to users.

The federal government has had a history of providing investment tax credits to encourage individuals to invest in certain activities. Investment tax credits are not available for water conservation projects at this time. A reintroduction of these tax credits directly related to water conservation may lead to decreases in water use and the reallocation of saved water.

## **Conclusions**

Most of the water use in the west is for agricultural purposes. In order to meet the increased demands by other sectors of the economy, water use will have to be transferred from the agricultural sector to those sectors.

Water conservation, in the sense of decreasing use in one sector to be used in another sector, is not as easy as it may seem. The hydrology, laws, institutions, and distribution of existing water rights are different for each of the western states. Any general rule, instituted at the federal level, will need to take these differences into consideration.

The suggestions for changes in the federal tax laws presented above may encourage individual agricultural users to conserve water compared to present use. Whether that translates into water that could be used by other sectors of the economy cannot be answered with an unqualified yes. Individual water savings does not automatically translate into available water for other uses. And if the proposed changes do increase the availability of water, there needs to be a system for the transfer of water rights that allows the user to benefit from the water conservation program.

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