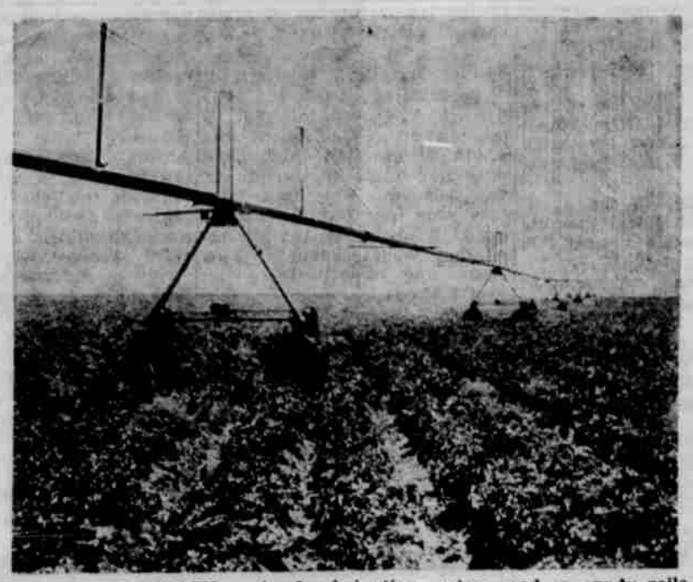
Irrigation and Water Storage Projects Within Decade

Annual Financial Report Of January 1, 1970

Bank Balance of Jan. 1, 1970		$ 384.93
Gross income from Cooperators	$ 215.65	
Donations from annual add.	166.00	
State of Oregon subsidy	60.00	
F. N. Bank Interest (time saving)	50.69	
	492.34	492.34
Total balance and income		877.27
Disbursements for 1970		
Sect. State audit	5.00	
Oregon Assoc. Consv. dues	65.00	
National Assoc. Consv. dues	82.50	
National Assoc. for Stewardship Material	28.00	
Liability Insurance	46.00	
Treasurer Bond	10.00	
Survey Flags	90.74	
National Assoc. for Envelopes	62.05	
Postage	18.00	
Annual add	169.32	
Lexington Grange rent	15.00	
Refreshments for Annual Meeting	7.25	
Refreshments for 5th grade tour	11.16	
Trophies and Awards	61.63	
RC&D Contribution	10.00	
Total disbursement	681.65	681.65
Bank balance and on hand Jan. 1, 1971		$ 195.62
On times savings acct.		$1,000.00
Value of equipment		$ 717.93
Total cash and equipment		$1,913.55
Accounts receivable	$31.00	
Less account credit	1.00	
	$30.00	
Rentals — Gopher Getter		$12.00
Terracer, ... $6.25, Land Leveling Stakes, ... $27.40, Flags		$85.50

Respectfully,
EDMOND GONTY, Treasurer



THIS PICTURE SHOWS a circular irrigation system used on sandy soils for a crop of potatoes. This circle is electrically rotated. Sprinkler heads are equally spaced along line. (SCS Photo).

Nuclear Power -- How Safe Is It?

By C. W. RUDDELL

Nuclear powered generators operate in much the same way coal or gas fired generators. The main difference is the fuel used to create the steam which drives the turbines. In a nuclear plant, the heat comes from the fission of the nuclear fuel in a reactor.

The reactor consists of a core assembly of fuel rods (containing uranium dioxide pellets) interspersed with control rods and surrounded by a moderator material. This assembly is all contained in a steel reactor vessel, 40 feet high and 16 feet in diameter, and weighing more than a million pounds.

Fissioning starts when the control rods are withdrawn from the core and stops when they are reinserted.

The question is often asked, "Is nuclear generation of electricity safe? And is there a danger of a nuclear explosion?" Simply stated, the answer is that fuel in a nuclear plant cannot explode because it is diluted, only 2-4% fissionable, and arranged in small quantities safely separated from each other. It may interest you to learn that President Nixon's residence at San Clemente, California, is safely located within 4,500 yards of a nuclear generating plant.

What about radiation hazard? Radiation has always been present in our universe — it is in the food we eat, water we drink and the ground we walk on. Living at sea level, we each receive a minimum of 100-125 millirems of background radiation a year. Living in Denver, Colorado, we'd receive about 200 millirems.

A person living near a nuclear plant may receive 1 additional millirem per year, less than what he would receive during a single jet flight between Seattle and New York.

Nuclear plants have been designed to avert any accident or combination of accidents which man could imagine. The nuclear power industry has progressed beyond all other industries in providing for the safety of its employees, for the public.

Among the many built-in safeguards of a nuclear plant are:

The Zircomian alloy cladding of the fuel; the control rods which give complete control of the rate of fissioning action at all times; the stainless steel lined, carbon steel reactor vessel; the reactor housing built to withstand fire, flood and earthquake; the sensitive monitoring systems and automatic safety devices which can shutdown the reactor in seconds. There are so many back-up systems to provide for the safety of reactors that they are referred to as being redundant.

Population is growing. Per capita demand for electricity is growing. When these factors are multiplied together, the answer calls for a tremendous increase in electric power production. By 1980, our demand for electricity will be nearly double the need in 1970.

Since opportunities to develop additional hydro-electric generating facilities are limited this increasing demand will have to be met by use of thermal-powered generators. Due to the scarcity of fossil fuels in our region, this means that nuclear plants will become a necessity unless we are willing to suffer brown-outs or even black-outs in the next decade.

Here are some advantages in the use of nuclear fuel for thermal plants:

Nuclear Fuel Is Smokeless, clean and odorless. Unlike fossil fuels, nuclear fuel does not put combustion products such as sulfur dioxide and carbon monoxide in the air.

Nuclear Fuel is Convenient. Unlike coal and oil, it does not require a great storage space. Thus, nuclear plants can be designed to be visually pleasing.

Nuclear Fuel is Economical. Nuclear Fuel Has The Least Impact On Our Enviroment. Through Nuclear Generating Plants, Electricity can be provided to meet our expanding needs at continued low-cost.

Growth and Change Coming to County

By KEN TURNER

By 1980 these water resource projects will most likely be completed.

1. **Willow Creek Dam** — The Willow Creek Dam with its companion Bureau of Reclamation assisted irrigation district is ready to go. Funding and construction might come quite soon with united support from Willow Creek irrigation district farmers. Increased production from summer water and recreational and flood benefits will have a big impact economically.

2. **Shobe canyon flood control** —The Willow Creek Dam project by the Corps of Engineers could well include channel improvement for Shobe Creek within the City of Heppner. Standard conservation practices up stream assisted by funds from the Rural Environmental Assistance Program and the Columbia- Blue Mt. RC&D could remove the flood threat to town property.

3. **Ione Flood Control** — Rietmann Creek watershed runoff is the primary culprit here. The RC&D can engineer and help fund the measures necessary to solve this problem. With one main group (the City of Ione) and relatively few land owners involved, this project has favorable priority for swift completion.

4. **Rhea Creek Watershed** — Hopefully a feasibility report is due in 1971 and with good cost ratios, Rhea Creek farmers can move ahead to impound early watershed runoff. Here again the relatively small size of the project plus its anticipated good cost-benefit rating should give it high priority and bring about completion in this decade.

5. **Columbia River — Shell-Farmore Project** — Will likely be first irrigation pumping development. They plan to lease tracts to local farmers.

Nuclear Coolant Water—Private utilities are showing keen interest to site in the area, using man made lakes for coolant, and participating in an irrigation development. A siting may be made soon calling for completion of the entire interrelated complex by 1980. This will have a vast positive impact on Morrow County.

Boeing — The Boeing Company has shown a sincere desire to finance an irrigation tract on its leased lands and sub-lease parcels to resident farmers.

Smaller private irrigation districts will come if financing becomes available and feasibility is determined.

Bureau of Reclamation—This agency will surely be involved in the eventual complete development of our irrigable lands.

6. **Deep Wells** — Underground water is limited in much of the county but more development is certain. Good economic potential may lie with small wells in the south and central part of county. Irrigated pasture availability will multiply livestock numbers many times.

Enthusiastic talk won't complete these things. Sound planning is essential, but really not enough hard work by enough people has been forthcoming.

THIS PICTURE SHOWS Harold Kerr reading automatic recorder results of evaporation pan. Information collected is used for determining irrigation frequency of potatoes shown in picture. Potatoes have became important crop of Morrow County in last few years. (SCS Phto).

What Is RC&D?

By H. C. GRABENHORST
Project Coordinator

During 1970 the Columbia-Blue Mountain Resource Conservation & Development Sponsors (the six Soil & Water Conservation Districts, the three county courts, and the three port commissions of Gilliam, Morrow and Umatilla Counties) completed a broad-based program. This tri-county, open-end program will serve as a guide to federal agencies developing the Columbia-Blue Mountain RC&D Project. In reality, this program is local people in action utilizing and developing such natural and human resources as land, water, air, and people in a conserving and effective manner.

Each day we see resource conservation and development in action. Someone may ask how can we irrigate this land? Is there an ample water supply? Will we need to construct a reservoir? In answering these questions three resources will be utilized and tied together: available land, available water, and available people. A project can then evolve which will assure resource conservation and development — not resource exploitation and ravishment.

The Sponsors have taken leadership in developing who, what, and how assistance can be secured from federal agencies on various projects such as Shobe Canyon Flooding, Ione Flooding, and Nuclear Park Designation. Other projects of a similar nature are also being considered.

Many times an RC&D challenge arises when assistance is not available even though there are county, state, and national long-range benefits to be derived. In these instances the RC&D sponsors notify the legislators of the situation so that consideration can be given to the merits of the challenge. This consideration might involve enacting a new law, changing an existing law, or an incentive reimbursement to bring about the needed action. Only when a resource challenge is brought to light can it be analyzed and met with deference and fortitude.

In the final analysis if a job is to be done, the local people must be the "quarterback" and keep the game moving.

Nuclear Plant Sites

By RUPERT KENNEDY
Port of Morrow

Nuclear power plant siting using the coolant water for irrigation of arid lands and other multiple uses such as recreation, fish and wildlife, ground water re-charge, city water, industrial water, fallow land recharge, controlled agricultural heating and city heating is now being considered as a requisite to nuclear power plant location.

It is apparent that it is only a matter of time that many nuclear plants will be used to help transport coolant water from streams to the land.

Morrow County's great Boardman plain, consisting of 350,000 acres of rich, low, level, early crop lands is considered by many to be ideal for the coolant water irrigation concepts.

It could come sooner than you think, and it is worth millions to Morrow County.

Morrow County could become Oregon's greatest agricultural producer by the year 2000 because it has the land and the water.

SWCD Annual Meeting Set For February 2

ALAN H. ROBINSON

It has been announced that the Heppner Soil and Water Conservation District's annual meeting will be held at 7:30 p.m., Feb. 2 at the Lexington Grange Hall.

Featured speaker will be Alan H. Robinson, associate professor of the School of Engineering at Oregon State University. Dr. Robinson received his bachelor of science degree in 1956 from Swarthmore College; his master of science degree was from Stanford University and his Ph.D was from Stanford in 1965, both latter degrees in Nuclear Engineering.

His fields of specialization are in Nuclear Engineering; reactor physics neutron transport theory; neutrol radiology and reactor mathematics. Dr. Robinson's talk will be very appropriate for Morrow County, it was reported, as nuclear power is of great potential interest in this part of Eastern Oregon.

Farmers Face Conservation Dilemma

By C. R. McELLIGOTT

After many years of official encouragement for soil conservation work in the Columbia Basin summer fallow area, we now find ourselves in the position where those of us who have seeded grass on our diverted acres for conservation purposes could, in some instances, be hurt by the new farm program. We feel that all the acreage that has been planted in grass on the diverted acres should be counted the same as summer fallow when determining allotments. According to our present information this would be the case only to the extent of five percent of the total crop land. This interpretation is still open to revision and your Soil and Water Conservation District, The Morrow County ASC Committee, the Oregon Wheat Growers League, and I hope many individuals are writing letters and pointing out what the effects of this would be.

Everyone is talking about conservation nowdays but it seems to mean different things in different places. While one part of the Department of Agriculture is making cost sharing payments to encourage grass seedings to help control erosion, we find another regulation that will have the effect of plowing up some of these seedings that have been put in in the last few years. Worst of all, this would discourage the growth of the program which is in need of great expansion.

We are still most hopeful that this will be cleared up very soon and that our efforts to promote grass seedings will not be discouraged. We feel that this is an administrative interpretation that can be corrected without congressional action and that it will be resolved so that no one will be hurt for trying to do a good job on his farm.

THIS PICTURE SHOWS Bob Jepsen thinking about all the wheat he will have to haul to town this fall. Anticipated good yield is the result of outstanding management and January rains. Bob was selected as Morrow County Conservation Man of the Year. (SCS Photo)

THIS PICTURE SHOWS District Conservationist explaining a soils profile to Heppner and Ione 5th grades. This is an annual tour sponsored by the Heppner S&WCD. (SCS Photo)