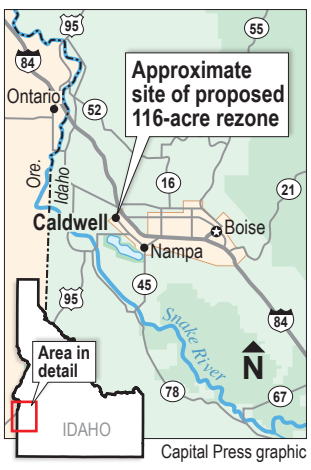

Capital Press graphic

1-acre home lots planned for farmland near city in SW Idaho

By BRAD CARLSON
Capital Press

A proposed 116-acre conversion of southwest Idaho farmland to 1-acre home lots would alter some irrigation infrastructure but would not impact the segment of a canal that lies on part of the property.

The Canyon County Planning and Zoning Commission on Oct. 18 endorsed Lone Star Land LLC's proposal to rezone the property near Caldwell from agricultural to R-1 residential, characterized by an average of one lot per acre. The Canyon County Board of Commissioners is scheduled to consider final approval on Dec. 18.

Retired farmer Richard Huff owns the property, which in the past year produced wheat and field corn. His son, Sam Huff, said the property includes an area where another farmer grows echinacea flowers on contract, which will continue until the contract expires.

The Huff family owns about 300 acres of farmland. The Lone Star portion is sloping and sandy, and not as productive as the rest, Sam Huff said. The development would not affect irrigation on neighboring properties, he said.

On-site water infrastructure includes a well, three gravity irrigation ditches and Deer Flat Canal. Any crossing of the canal, bordered by federal easements on two sides, would require a crossing agreement among the developer, the U.S. Bureau of Reclamation and Boise Project Board of Control, a Canyon County Planning and Zoning staff report said.

The Boise Project stores water behind two of the three Boise River dams, operates a large canal system, services five irrigation districts and operates the Lake Lowell off-site reservoir.

Plans call for removing ditches and replacing the gravity irrigation system with a pressurized system, said project representative John Cotner of Cotner Building Co. Nothing would be done to Deer Flat Canal.

Board approves $4.3 million loan for North Fremont Canal System upgrade

By BRAD CARLSON
Capital Press

The Idaho Water Resource Board on an Oct. 23 conference call approved a 20-year, $4.3 million loan to North Fremont Canal System for a phase of the Marysville gravity-pressurized irrigation pipeline project northeast of Idaho Falls.

The phase involves building a new diversion structure and converting 17.8 miles of open canal to 16 miles of gravity-pressurized pipeline to serve participating irrigators across about 2,784 acres of farmland in Fremont County, the board said in a release. It aims to conserve 2,400 acre-feet of irrigation water lost to seepage and evaporation, increase public safety by removing open canals, and save about 1,200 kilowatt-hours of electricity by removing pumping facilities.


Idaho Water Resource Board
Work continues on efficiency and safety improvements to the North Fremont Canal System in Fremont County, Idaho.

North Fremont Canal System President Sean Maupin said about 40 large pumps will be phased out. "You can spend $7,000 to $8,000 just to start up those pumps," he said.

Power savings are expected to cover most of the increased per-acre assessment that participating farmers will pay to cover the loan cost, and the project will not cause the Eastern Snake Plain Aquifer to lose water, he said.

Board staff member Rick Collingwood said the pipeline project's efficiency will "improve delivery of water to shareholders so they can receive their full allocation of water during the peak period of the irrigation season."

The pipeline also will eliminate what has been a potential safety hazard, the open canal running through Ashton and bordering a part of an elementary school property. The board said the project also is expected to improve water quality by eliminating irrigation return flows to Henry's Fork of the Snake River, reduce noxious weeds in open canals, and improve seasonal air quality by eliminating the need to burn vegetation along canal and ditch systems.

The $11.1 million project phase also is funded by a $6.8 million grant from the Natural Resources Conservation Service. Construction is expected to start later this fall and conclude for the spring 2019 crop season.

Before the state board approved the new loan, North Fremont Canal System had a loan balance of $1.6 million, having accelerated loan payments at times to reduce interest, a board official said.

The board earlier approved loans, for project phases, of $2.5 million in 2013, $1.1 million in 2008 and $625,000 in 2007. The current phase is the most extensive, and another phase is expected in three to five years.

Harvest-assist machines join forces for faster apple picking

By DAN WHEAT
Capital Press

WAPATO, Wash. — It was a tight squeeze in the 10-foot-wide rows. A few limbs ladened with Fuji apples were broken as the Bandit Xpress-DBR harvest assist platform navigated the Valicoff Fruit Co. orchard.

Four pickers filled the first bin in 20 minutes without using picking bags or ladders.

That was decent, but in time the crew got faster.

The crew was learning on the job with a Burrows Tractor representative and Robert Valicoff, president of Valicoff Fruit, shouting instructions such as not putting too many apples at once into the small, padded buckets strapped to the workers' chests that fed vacuum tubes leading to the apple bin.

H-2A visa foreign guestworkers from Mexico, they spoke little English but said they liked the new system.

As J.J. Dagorret, inventor of the Bandit Xpress, says, pickers take to the Bandit-DBR "like ducks to water" because they don't have the weight of conventional picking bags and the added work of dumping them into bins.

The goal is to have the Bandit Xpress-DBR commercially available through Burrows next year. It's likely the last picking innovation short of robots. All of it is important because the supply of orchard labor has been growing tighter for years.

Five years ago, Dagorret, owner of Automated Ag Systems of Moses Lake, Wash., began selling his Bandit Xpress work platform for pruning and picking in orchards. It eliminated ladders as pickers riding on the platform picked into bags and dumped bags into bins that the machine picked up for filling and then lowered for tractors to haul away.

Valicoff said he helped Dagorret draw the design and that "he built it just like we drew it." Dagorret said he presented the design they talked about.

Dan Wheat/Capital Press
The Bandit Xpress-DBR apple harvest machine. The driver and two pickers in front are higher than the two pickers aft. The vacuum tubes feed apples to a bin filler in the middle. The machine picks up empty bins in front and deposits full ones out the rear for tractors to haul away.


Fuji apples softly enter bins via the rubberized bin filler of the Bandit Xpress-DBR harvest assist machine at Valicoff Fruit Co., Wapato, Wash.

Valicoff bought one of the first platforms in 2013 but hasn't been able to use it as much as he would like because he doesn't have enough newer plantings and it doesn't work as well in older plantings of larger trees.

Dagorret says the Bandit Xpress is 35 percent more efficient and safer than pickers using ladders. He built and sold 725 of them from 2013 through 2017 and is building 65 this year, plus 65 Bandit Cubs, which are 17 inches narrower. The Xpress sells for $64,000, the Cub for $68,000.

Last winter, Phil Brown, owner of DBR Conveyor Concepts in Conklin, Mich., asked Dagorret if the DBR vacuum tube and bin filler could be placed on the Bandit Xpress. Dagorret was game. Brown had designed and built a much larger machine that never caught on because of its size.

This harvest season the Bandit Xpress-DBR has been field tested in Washington and California. It improves picking efficiency by about 85 percent over ladders and by 40 percent over the standard Bandit Xpress without the DBR, Dagorret says.

It can fill bins in 4 to 5 minutes versus 10 to 12 minutes for pickers on a platform with bags, he said.

Large companies including Stemilt Growers LLC of Wenatchee, Zirkle Fruit of Selah and Washington Fruit and Produce Co. of Yakima have tested the Bandit Xpress-DBR along with smaller companies like Valicoff Fruit.

"Everybody wants to try it and the feedback is good. People are surprised that it doesn't bruise the apples, which is what everyone is focused on," Dagorret said.

Honeycrisp apples are sensitive to bruising, but the bruising rate with the machine is just 6.4 percent, which is a good low number, he said.

The vacuum tubes are 9 feet long and suck apples through at a rate of 15 feet per second. A decelerator slows them down for the bin filler.

The main issue, Dagorret said, is training pickers to allow a split second between apples they place in their padded buckets that feed the tubes so apples don't collide with each other as they decelerate. Pickers in front have to remember to concentrate on picking higher fruit and leave lower fruit for the pickers standing a foot or so lower in the rear.

The only other issues are machine noise and the bin filler filling two corners of a bin faster than the other two corners. But those are both easy fixes, Dagorret said.

His goal this summer and fall was to get as many growers trying it as possible to get feedback to work out any quirks before commercial sales through Burrows next year.

"I wasn't sure how pickers would accept it because they never like anything new. But they love it because they no longer have the weight of a picking bag," he said.

The DBR vacuum system will sell for $35,000 to $40,000 each and mount right on the Xpress or Cub, Dagorret and Brown said.

The idea is a functional, dependable product that is affordable, they said.

Valicoff said he's impressed and would like to see someone offer contracted use to smaller growers like himself who may not want to buy their own. He's also interested in contract robotic spraying and mowing.

Valicoff said he sees the machine as a bridge to robotic picking that's coming in two to three years.

Brown said commercial robotic harvesters are probably five to six years away and are slowed, as much as anything, by needing trees designed for robotic pruning and picking.

Several years ago, Dan Steere, CEO of Abundant Robotics, of Hayward, Calif., said he would have a robotic apple picker in commercial production in the fall of 2018. That hasn't happened. He declined comment this month on his continued field testing.

Avi Kahani, CEO of FFRobotics, of Emeq-Heffer, Israel, said his goal is to have his robotic apple picker ready for commercial use in the fall of 2019. He was to field test it this fall in Washington with the Bandit Xpress-DBR and said he still hopes to. Dagorret said he's hopeful but doubtful since the season is winding down.

"If Avi gets his machine here," Dagorret said, "I think we would blow right by Abundant Robotics. Avi's is electrical hands grabbing the fruit instead of a vacuum sucking the fruit off the tree so it takes a lot less horsepower and less space."