

Energy and Dollar Savings Custom and Menu Options

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Irrigation Efficiency Rewards

Menu Option

- Designed to reduce energy consumption by replacing worn or damaged irrigation system components
- Idaho Power provides incentives to customers
- Components can be replaced for incentive only after three years of use
- Pivot packages are normally replaced after 10,000 hours of operation or 5 years of use.

Nozzle Wear and Flow

- If a drill bit does not tightly fit into the same size nozzle, wear has occurred.
- A loose fitting drill bit that has room for the width of one hair equals an increase in water flow of up to 20%

¼ mile -- 32-Bird Line

20% Increase in Flow



29 GPM
1893 kWh
\$130.62

New or Rebuilt impact or rotating type sprinklers - \$2.75



Leveler Rebuild Kits \$ 0.75



0.3 GPM
20 kWh
\$1.35

Complete Package

Regulator, Nozzle , Head \$8.00



5% wear

45 GPM

2937 kWh

\$202.68

Goosenecks \$1.00



Wheel Line Gaskets \$1.00



0.5 GPM
33 kWh
\$2.25

Drains \$1.00



1.7 GPM
111 kWh
\$7.66

Risercap Gaskets \$1.00



3.9 GPM
255 kWh
\$17.50

Hand, Wheel or Portable Line Gaskets \$1.00



10 GPM
653 kWh
\$45.04

Thunderbird Hubs \$12.00



5.2 GPM
339 kWh
\$23.42

Aluminum Hand and Wheel Line Repair \$8.00



21 GPM
1371 kWh
\$94.58

Center Pivot Base Boot Gasket \$125.00



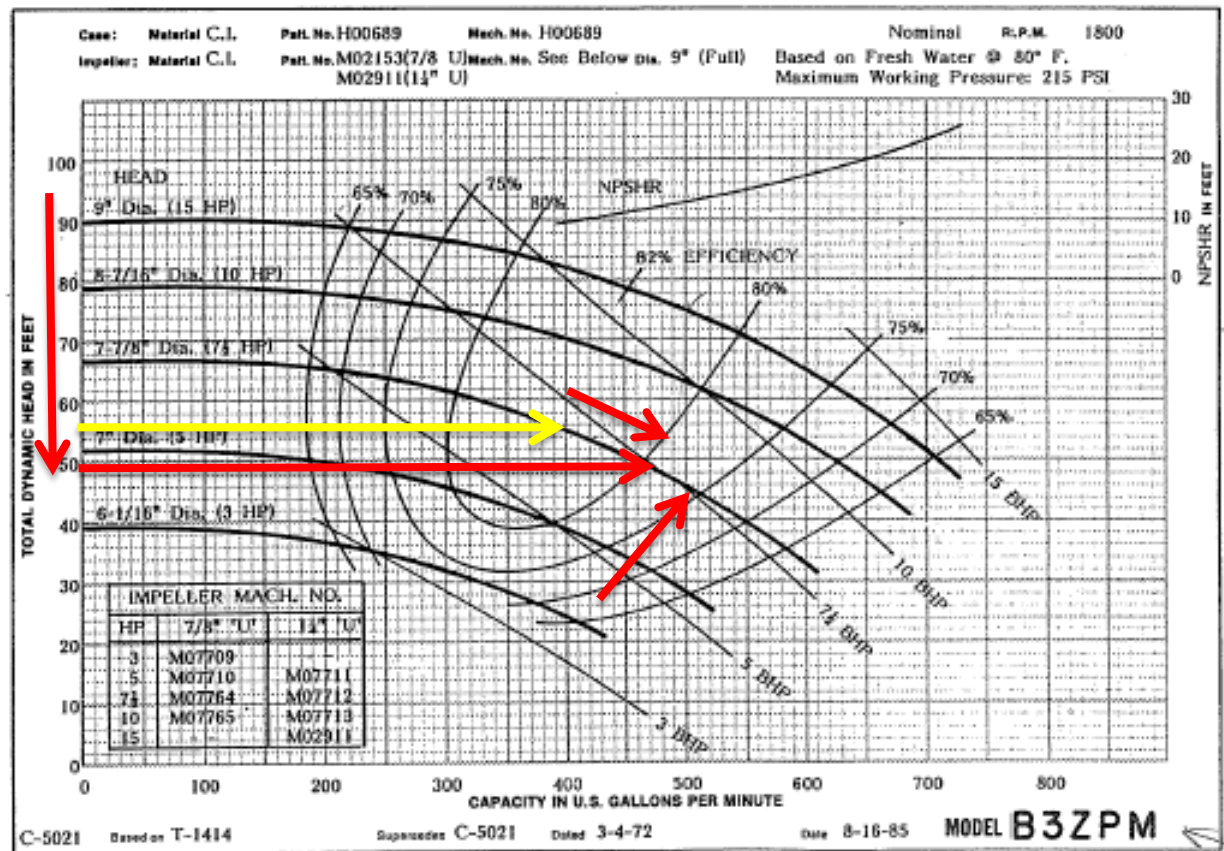
0.5 GPM

33 KWH

\$2.25

How does worn equipment effect my pump?

- As the pump moves further out on it's operating curve:
- Increases flow (GPM pumped)
- Decreases pump efficiency
- Reduces operating pressure (TDH)
- Increases HP requirement and \$\$\$
- Decreases application uniformity resulting in yield loss



*overly wetted areas are more susceptible to disease and runoff.

Irrigation Efficiency

Rewards - Custom Program

Existing & New Systems

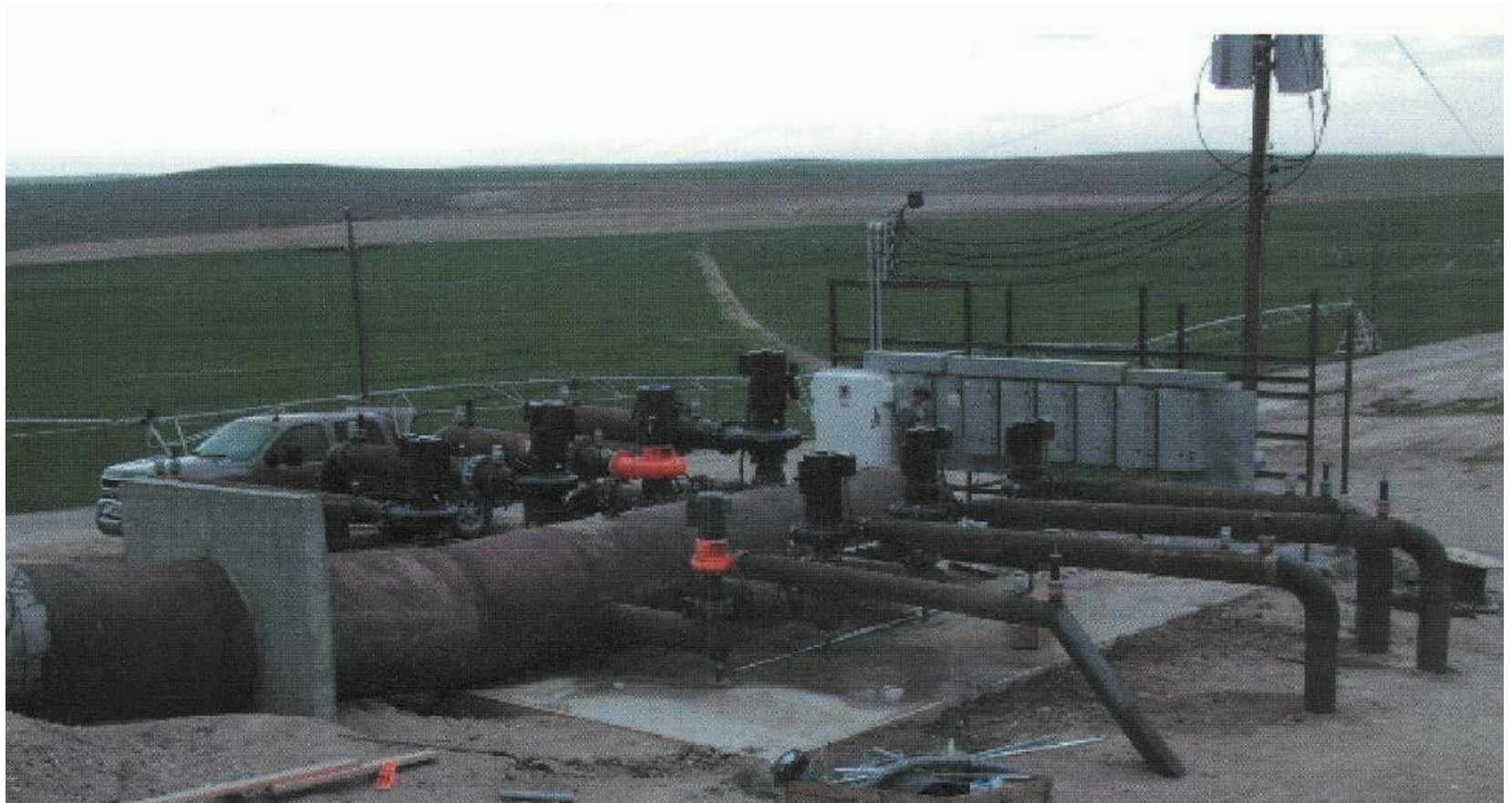
For significant changes to an Existing system or for installing a New system
25 cents per kWh Saved or \$ 450 per kW -- multiplied by the amount of savings calculated to happen in one season

Idaho Power calculates and verifies kW & kWh savings-New systems savings are based on the difference between what Idaho Power calculates to be standard vs what is actually being installed

Never more than 75 % of cost for an Existing system, no more than 10 % of cost for New system

Must apply and get approval before project begins

Eight pumps all different Pressures



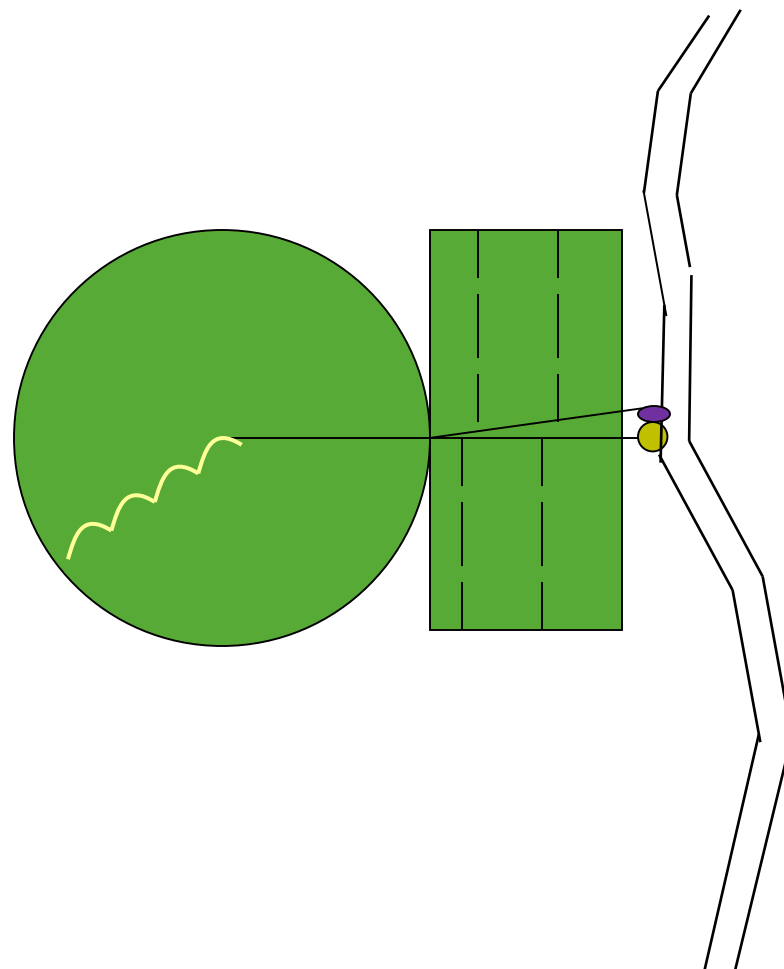
Supply Pressure in Zones

- Single Pump – one pressure zone
- 65 Hp for both- 1500 gpm @ 60 psi probably put in a 75 Hp

Versus

- Two pumps – two pressure zones
- 25 Hp for Pivot - 900 gpm @ 40 Psi
- 20 Hp for Wheelines- 600 gpm @ 60 psi

Annual savings \$ 2600



Questions?