



# Capital Business Case

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## Variable Frequency Drive Replacement

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2023 Budget

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# Cardinal WPCP Variable Frequency Drive Replacement

## **Executive Summary**

The Cardinal WPCP utilizes two Seepex pumps and variable frequency drives to pump unthickened biosolids from a holding tank to the Gravity Belt Thickener. The pumps and variable frequency drives have been in operation for 25 years.

## **Business Need**

The Variable Frequency Drive for Seepex Pump # 1 has been serviced multiple times and rebuilt since start up. The VFD randomly enters fault conditions causing the pump to stop operating. IECBL has serviced the unit however this issue persists.

## **Options or Solutions Analysis**

**Option 1:** Contract IECBL to supply and install a new VFD.

**Option 2:** Continue to operated existing VFD.

## **Financial and/or Non Financial Benefits**

IECBL quoted \$8989.60 to supply and install a new VFD.

## **Risk Analysis**

Failure of the VFD would result in one pump being out of service and we would lose redundancy.

## **Recommendation**

**Option 1:** Purchase and replace the Variable Frequency Drive in Seepex Pump # 1.

## **Implementation Plan**

Contract IECBL to supply and install VFD.

## **Documentation**

Quotation attached.

## **Acceptance Sign-off**

**Lead Department**

**Prepared By:** [Eric Wemerman, Chief Water/Sewer Operator]      **Date:** 01-20-2023

**Signature:** *Eric Wemerman*

**Approved By:** Sean Nicholson, Treasurer      **Date:** 01-30-2023

**Signature:** *SN*

**Approved By:** Dave Grant, CAO      **Date:** 01-30-2023

**Signature:** *D Grant*