

**MINUTES**  
**CITY OF DELANO**  
**City Council/Economic Development Authority**  
**Tuesday, January 21, 2020**  
**7:00 PM**

**1. Call to Order**

Mayor Graunke called the regular meeting of the Delano City Council/Economic Development Authority of Tuesday, January 21, 2020, to order at 7:00pm.

**2. Roll Call and Approval of Agenda**

**Members Present:** Mayor Dale Graunke; Councilmembers Betsy Moran, Holly Schrupp Jason Franzen and Jon Sutherland

**Also Present:** Phil Kern, City Administrator; Shawn Louwagie, City Engineer; Paula Bauman, Administrative Services Coordinator; Molly Fleming, Administrative Intern

Phil Kern recommended adding the following items:

Consent: Authorize the appointment and placement of Emily Grinnell as a probationary status Fire Fighter with the Delano Fire Department.

City Strategy No. 1: Adopt resolutions related to the 2020 Elections

**Motion by Holly Schrupp, seconded by Jason Franzen to approve the agenda with the recommended additions; motion carried.**

**3. Minutes**

**Motion by Betsy Moran, seconded by Jon Sutherland to approve minutes as submitted; motion carried.**

A. January 7, 2020 - Special Workshop | Summary Minutes

B. January 7, 2020 - Regular Meeting

**4. Speakers, Presentations and Awards**

**5. Consent Items**

Council welcomed Emily Grinnell to the Delano Fire Department

**Motion by Holly Schrupp, seconded by Betsy Moran to approve consent items as submitted; motion carried.**

A. Approve workstation hardware and software purchases

## 6. City Strategy No. 1: Provide comprehensive services to meet community needs.

### A. Adopt resolutions related to the 2020 Elections

Staff is recommending the adoption of resolutions pertaining to the 2020 Elections:

**Absentee Ballot Board.** The City of Delano will conduct absentee voting for City of Delano residents for the 2020 Elections. As required by state statute, the City is required to establish an Absentee Ballot Board. This board will consist of election judges and/or staff who have been trained in the process of counting and processing absentee ballots.

**Appointing additional Election Judges.** The City of Delano is fortunate to have members of the community willing to serve as election judges. At the December 17th meeting, Council approved thirty-six judges to serve in the 2020 Elections. Since that approval, Staff has received four additional applications. The deadline to appoint judges for the PNP Election is February 7, 2020.

**Motion by Betsy Moran, seconded by Jason Franzen to adopt resolution R-20-01 establishing an Absentee Ballot Board for the purpose of accepting and rejecting absentee ballots for the City of Delano; motion carried 5-0 by roll call vote.**

**Motion by Holly Schrupp, seconded by Jon Sutherland to adopt resolution R-20-02 appointing Election Judges for the 2020 Presidential Primary Election to be held on March 3, 2020, Primary Election to be held on August 11, 2020, and General Election to be held on November 3, 2020; motion carried 5-0 by roll call vote.**

## 7. City Strategy No. 2: Maintain financial sustainability and fiscal stewardship

## 8. City Strategy No. 3: Conscientious asset/infrastructure management

### A. Delano Wastewater Treatment Facility Biosolids Management & Phosphorus Removal Project

The WWTF currently manages biosolids generated by the treatment process using reed beds for dewatering. For the reasons listed below, the City is considering possible future changes to its biosolids management system. Kern discussed potential management strategies for the near-term, intermediate-term, and long-term.

1. **Regulatory Changes.** The existing reed beds use non-native *Phragmites australis* ssp. *australis* species of reed, which has been designated a restricted noxious weed in Minnesota. Because of this designation, the Minnesota Pollution Control Agency (MPCA) is expected to implement future requirements to phase out the use of nonnative reeds at WWTFs. Other municipalities have attempted to implement native reed species for biosolids dewatering, but with a reduced dewatering performance.

2. **Projected Growth.** The current reed beds have been in operation for over 20 years without the need to remove the dewatered material. However, as flows and loads to the WWTF continue to increase (including expected increase from industrial flows), the need for periodic excavations is anticipated to increase.

3. Odors. The current reed bed system operates with relatively low odors, however, the WWTF is in an area of the City where odors can affect nearby residents and visitors. It is important that any proposed changes to the biosolids management process consider how odors would be generated and managed. Management options expected to increase odors were not considered as part of this evaluation, including converting the reed beds to drying beds.

#### Phase 1 – Current and Near-Term Operations.

The existing reed beds were constructed in two phases. The first set of reed beds (cells 1-4) were constructed in 1997. The second set of reed beds (cells 5-14) were constructed in 2004. Since the original construction projects, dewatered biosolids have yet to be removed from the reed beds. They have performed well for the City and provided 23 years of capacity.

For Phase 1, the existing reed beds would continue to be utilized for as long as possible, until mandated by MPCA to stop using the non-native species of reeds. If evacuation of current reed beds is required prior to the MPCA mandate, the non-native phragmites would be utilized in the new reed bed. When mandated by MPCA to change reeds or technologies, then the City would implement a project to move to a new biosolids management approach.

Although wastewater loading to the WWTF (and thus biosolids production) is expected to increase in 2020 when the proposed KLN Family Brands facility begins operation, sufficient reed bed capacity remains. As Table 1 shows, the reed beds have approximately 43% of total capacity remaining. Cells 1-4 are nearing capacity and are expected to require evacuation sooner than cells 5-14.

Based on a field investigation conducted on December 2019, the bulk unit density of the material is 66 lb/cubic foot. This information is used to estimate the hauling and disposal costs for a future reed bed evacuation.

Based on current pricing, the total cost of removing the dewatered material from cells 1-4 of the reed bed system is expected to be approximately \$300,000. This includes excavation, hauling, disposal, and replanting reeds. Disposal would be expected to occur at the Vonco II landfill near Becker.

#### Phase 2 – Intermediate Term Alternatives

When it is determined that continued use of the non-native reed species is no longer allowed by the MPCA, the City would plan for and implement a solution to eliminate or modify the use of the reed beds. This section discusses alternatives for intermediate term biosolids management.

Alternative A – Use of Native Reeds. The MPCA and Minnesota Department of Agriculture (MDA) are currently working with other municipalities to identify a suitable replacement reed species and operations protocol to provide for the same dewatering performance. So far, a suitable replacement to the nonnative reeds has not been identified. If a suitable replacement is identified, continued use of the reed beds in Delano could be considered. Other factors to

consider for this option include reed bed capacity, frequency and cost of evacuating the reed beds as wastewater flow increases, and odors.

**Alternative B – Dewatering & Landfilling** This alternative would consist of removing the existing gravity belt thickener (which is currently not used) and replacing it with a screw press for biosolids dewatering. As part of this alternative, a building addition would be constructed to house a dewatered biosolids storage dumpster. An odor management system would be installed to treat exhaust air from the screw press and dumpster rooms. For the purpose of estimating cost, it is assumed that dewatered biosolids would be hauled to the Vonco II landfill in Becker.

The advantages of this alternative include:

- A. Reduces odor issues by not operating reed beds
- B. Provides flexibility by having reed beds but not utilizing (could use in emergency)
- C. Eliminates use of non-native Phragmites
- D. Reduced hauling volume compared to land application option
- E. Does not require land application permitting
- F. Provides reliable disposal option
- G. Lower capital cost compared to Alternatives C and D
- H. Lower operating cost compared to Alternatives C and D

The disadvantages of this alternative include:

- A. Added capital and operating costs compared to existing reed beds
- B. Fluctuations of landfilling costs
- C. Dependent on landfill capacity and acceptance of material

The estimated initial capital cost for the installation of a screw press and construction of a building addition is \$1,749,000. The estimated annual O&M costs for hauling dewatered biosolids to landfill is \$114,000 at current flows and \$290,000 at design capacity.

**Alternative C – Land Application.** Many communities around Minnesota land apply biosolids, including cities close to Delano. This option involves storing liquid biosolids (typically 2-3 percent solids), hauling the liquid biosolids in tanker trucks, and spreading on agricultural land. There are usually two application events per year, one in the spring and one in the fall. A contractor would be hired to identify fields for land application and handle all permitting, hauling, and land application.

For Delano to implement this option, additional biosolids storage capacity and appropriate loadout infrastructure would be required. The WWTF currently has approximately 480,000 gallons of storage available. To provide six months of storage at the current flow, a total

storage volume of 1,000,000 gallons is required. At the design flow for the facility, a total storage volume of 2,900,000 gallons is required.

Therefore, a new sludge storage tank with a capacity of 2,400,000 gallons is proposed for this option. The proposed tank would be an above ground, steel, covered (with vent), field erected tank. It would be aerated, so diffused air piping in the tank would be provided with external blowers. Existing pumps could be utilized to pump biosolids into the new tank. New pumping and loadout piping would be provided to load tanker trucks during the application events.

The advantages of this alternative include:

- A. Reduces odor issues by not operating reed beds (although potential odor emissions from storage tank vent and during tanker truck loadout events)
- B. Provides flexibility by having reed beds but not utilizing (could use in emergency)
- C. Eliminates use of non-native Phragmites
- D. Provides nutrient benefit to fields where land application occurs

The disadvantages of this alternative include:

- A. Added regulatory requirements of land application
- B. Affected by weather – can be difficult to access fields in wet years
- C. Higher capital cost compared to Alternative B
- D. Higher operating costs compared to Alternative B
- E. Larger footprint at the WWTF with new tank and loadout station
- F. Risk of future regulatory changes that would affect land application (specifically related to PFAS)

The estimated initial capital cost for the construction of additional biosolids storage is \$3,171,000. The estimated annual O&M costs for hauling and land-applying biosolids is \$233,000 at current flows and \$635,000 at design capacity.

Alternative D – Hauling Biosolids to Another Community. This alternative would consist hauling liquid (2 percent) biosolids to another community for treatment/disposal. Neighboring communities employ various technologies for treating and dewatering sludge and may have additional capacity to accept biosolids from other communities, including from Delano. These other communities still must dispose of the processed biosolids either through land application or landfilling.

For the purpose of estimating costs, it is assumed that biosolids would be hauled to the Buffalo WWTF. The City of Buffalo operates a dryer system and incinerates the biosolids prior to landfilling. Based on conversations with the City of Buffalo, they would be willing to accept

biosolids on an as-needed basis but are not currently prepared to commit to be the sole disposal method for another community. Further study and negotiations would be required to ensure that any impacts to their operational capabilities and liability concerns are addressed.

For this option, construction of a new load out station at the Delano WWTF would be required. Given current sludge generation rates, it is anticipated that approximately 12 truckloads per week would be required. At future design flows, it is anticipated that approximately 38 truckloads per week would be required (assuming 3,000 gallons per truck).

The advantages of this alternative include:

- A. Minimal capital costs (load out station and initial agreement/negotiation process with other City)
- B. Reduces odor issues by not operating reed beds
- C. Provides flexibility by having reed beds but not utilizing (could use in emergency)
- D. Eliminates use of non-native Phragmites

The disadvantages of this alternative include:

- A. Highest operating cost of all options
- B. Time and expense related to negotiating with another City and studying impacts to their operations
- C. Relies on another City to continue to accept biosolids
- D. Discontinued acceptance would lead to additional capital and O&M costs identified other Alternatives

The estimated initial capital cost for the construction of a load out station and initial agreement/negotiation process is \$399,000. The estimated annual O&M costs for hauling and disposal of biosolids is \$330,000 at current flows and \$930,000 at design capacity.

### Phase 3 – Long-Term (Regional, Multi-Jurisdictional Facility)

The options presented in Phase 2 identify traditional alternatives commonly used at municipal wastewater treatment facilities for biosolids management. A different type of option has also been identified that could provide unique benefits to the City. This option would involve a larger project that involves multiple stakeholders possibly including, but not limited to, Delano Municipal Utilities and Randy's Environmental Services.

This option would involve the construction of a resource recovery facility, likely relying on anaerobic digestion technology. Biosolids from the WWTF would be sent to the facility, where they would undergo anaerobic digestion with other high strength wastes provided by other entities as well as possibly biosolids from other nearby communities. The anaerobic digestion

system would generate methane that could be sent to the natural gas grid or be converted to electricity. In addition to energy in the form of methane, other resources to potentially be recovered from the system include nutrients that could be used as fertilizer.

This type of regional system has been implemented by other organizations. Relatively recently the City of St. Cloud has constructed a similar facility at their wastewater treatment facility. To implement this solution additional work will be required to evaluate technologies, develop construction and operating agreements, identify a suitable site, identify waste feedstocks, and continued coordination between stakeholders.

**Phosphorus Limits and Alum Storage.** In 2023, the MPCA is expected to impose a lower total phosphorus limit on the Delano WWTF. To comply with the lower limit, the WWTF will require an increased chemical feed rate to remove additional phosphorus during treatment. The WWTF currently utilizes aluminum sulfate (alum) to remove phosphorus as part of the treatment process.

Current alum feed rates are 25,000-29,000 gallons per year (480-560 gal/week). Based on a comparison of current and expected future limits, it is estimated that alum dosage rates will increase to approximately 32,000 gallons per year (620 gal/week). Although the existing chemical delivery system is sized adequately for the increase in alum dosing, additional alum storage would allow for the City to receive bulk chemical deliveries, which provides for a lower per-gallon chemical cost. Alum is currently delivered in totes. Current costs per gal for alum via totes in Delano is \$2.61/gal. Full tanker loads in Monticello currently are \$1.44/gal (approximately 45% less cost per gallon). At future chemical feed rates (current flows and future phosphorus limit), this represents an annual savings of approximately \$38,000. As influent wastewater flows increase in the future, the annual cost savings is expected to increase.

Alum is currently stored in two 685-gallon tanks which together provide a total storage volume of 1,370 gallons. To obtain a full tanker truck, a 5,000-gallon storage tank is preferred. However, there is only space in the current chemical storage room to accommodate a total storage tank volume of approximately 2,500 gallons. The City would need to coordinate with chemical delivery companies to identify potential partners in the area that would be willing to share a bulk delivery load. Or, implement a larger project that involves significant building renovation costs to obtain a 5,000-gallon storage tank.

The upgrade to 2,500 gallons of storage would consist of the replacement of the two existing tanks with two new double-walled 1,250-gallon tanks. The new tanks would be installed in the chemical room. Modifications to the room would be required, including rerouting piping and removing the secondary containment stub walls to accommodate the new tanks. The estimated initial capital cost for the construction is \$130,000.

#### B. 125 Woodland Road Site Demolition Quotes

125 Woodland Road is the site of the previous Delano Quick Shop gas station site, which has sat vacant since 2013. In November 2019, City Council passed a resolution declaring an intent to include the area within a Proposed Tax Increment District and clear the site for development

interest opportunities. Wenck staff have developed a quote package for the demolition of the buildings, structures, underground storage tanks, and other site items located at the site. From the bids received, Veit is the apparent low bidder with a total base bid of \$68,315.00. Staff is recommending approval.

**Motion by Betsy Moran, seconded by Holly Schrupp to award the demolition bid of 125 Woodland Road site to Veit Contracting; motion carried.**

9. **City Strategy No. 4: Manage sustainable and planned growth**
10. **City Strategy No. 5: Foster engaged and informed community**
11. **City Strategy No. 6: Ensure a high-performing team of public servants**
12. **City Strategy No. 7: Manage a safe and healthy community**
13. **City Strategy No. 8: Maintain and protect community strengths**
14. **Updates from Commission Liaisons**
  - A. Fire Relief Association
  - B. Park and Recreation Commission
  - C. Planning Commission
  - D. Public Safety Commission
  - E. Spirit of Community Commission
  - F. Water, Light and Power Commission

**15. Communications and Announcements**

**16. Claims**

- A. City Claims

**Motion by Holly Schrupp, seconded by Betsy Moran to approve city claims as submitted; motion carried.**

**17. Adjournment**

There being no further business to discuss the regular meeting of the Delano City Council/Economic Development Authority of Tuesday, January 21, 2020, was adjourned.

Signed  
Dale Graunke, Mayor  
Attest: Paula Bauman, Administrative Services Coordinator