

Special City Council Meeting  
City Council Chambers

May 30, 2012  
10:00 a.m.

Present: Council members    Jeff Kennedy  
   Gary Fritch  
   Jeff Whiting  
   Bruce Clymer  
City Administrator            Connie L. Dalrymple  
City Clerk / Treasurer

Absent: Mayor – Joyce Hudson  
Councilmember Tim Strauser  
City Attorney Mike Bacon

Press: *Gothenburg Times* - Beth Barrett

Also present: Shane Gruber, Travis Mason, Paul Brakhage, Duane Oliver

Council President Jeff Kennedy opened the meeting at 10:00 a.m. Advance notice and a copy of the agenda were given to the Council and members of the press. City Council meetings are conducted in accordance with the Open Meetings Act, a copy of which is available for public inspection on the north wall of the Council Chambers.

According to Paul Brakhage the first phase of the reclamation of Lake Helen is the preliminary evaluation of the condition of the Lake. This revealed three goals / questions:

- Is it possible to meet Nebraska Water Quality Standards?
- Can the lake be deepened to meet Game & Park's requirements (for fish habitat)?
- Can rough fish introduction from the canal be eliminated?

All questions can be answered 'yes' which brings about the second phase of the project that is, what HAS to be done to achieve those goals.

1. Eliminate 99.9% of the migratory & resident waterfowl.

Management Options

- a. Tall grass management around shorelines
  - b. Increase human and pet activity on and around the lake (trails, etc.)
  - c. Rip-rap along shoreline in critical waterfowl access areas
  - d. Change lake configuration to disrupt landing patterns
  - e. Cabling to impede landing patterns (focus on migration)
  - f. Waterfowl feeding restrictions
2. Eliminate 100% of the street runoff from entering the lake. Management Option
    - a. Create off-site storm water storage
  3. Reduce bottom sediment phosphorus release by 85% - 95%. Management Option
    - a. Apply aluminum sulfate to inactivate phosphorus
  4. Remove enough sediment to achieve at least 10 feet of depth in at least 25 percent of the lake surface area.

### Management Options

- a. Hydraulic dredge
  - b. Drain, dry, and scrape sediment
5. Eliminate all rough fish introduction.

### Management Options

- a. Provide rough fish egg filtration system for any canal water used
- b. Eliminate the use of canal water

NOTE: Eliminating the use of canal water will also reduce inputs of bacteria, pesticides, and approximately 1,800 pounds of sediment annually. Over time, the dredged area will fill in if something does not stop erosion / silting.

Travis Mason of Miller & Assoc. provided a preliminary design of the lake area that includes reducing the size of the smaller north lake, constructing land jetties into the lake to create various fish areas and discourage water fowl, creating flat areas and sloping into deepened lake areas. The lake area will have portions that are six feet, eight feet, and 15 feet deep.

The best option would be to drain the lake, remove the sediment, and reseal it. We can try to use some of the sediment for fill if it is not saturated by goose droppings. Scraping would require the lake to be dry for two years, which is what Game & Parks wants. That would also discourage water fowl. The down side is that reclaiming the lake would become a three year project. The total lake area is currently approximately 30 acres and the State wants a smaller lake area of about 15 acres. The well can sustain the lake by trenching pipe into the main lake area and filling it from a lower level. This would also help the water temperature.

The new open land area on the north side could be used for things like a soccer field or play area, perhaps utilizing a *Land and Sky Grant*. Other use options could be kite flying, or flooding in the winter for ice skating. Whatever is done with it, it needs to be isolated from the main lake. If undecided, we could fill it in and decide later how to use the area.

It will be important to take time to do the project right to have a nice looking, usable area that the community will enjoy and use. People enjoy parking and walking at the water's edge so an expanded trail area and parking area should enhance what's already there.

### **Project Design Decisions That Need To Be Made**

- What size, shape, and depth of lake do we want?
- > Other uses of the small area of lake proposed to be filled in?
- Fish screening options/water use?
  - Sink multiple lower producing wells
  - Use the existing well
  - Does reduced sedimentation play into the water source decision?
  
- Priority of safety concerns relating to the roadway and steep embankment?

- Access issues?
- Is leaving the lake drained for two years an option for the city?

Discussion was had on needs, state requirements, and options for the lake area. Travis will prepare a master plan for Council review at the June 19 meeting. Then there will be meetings with the stakeholders to allow them to offer funding options and the public for their input. The master plan will reflect:

- A 1-way road from Highway 47 west into the park area and angling back north to the existing road with parking at the water's edge.
- Elimination of the small north lake. The resulting land area will be open field. Trails will be added.
- Land will be leveled to the trees on the east side and sloped to allow water shed. Since the north lake will be gone, the walk bridge may be relocated or removed.
- The main lake will be drained and allowed to dry for two years. This is less work and cost than dredging and will eliminate the geese.
- Addition of a screening system to eliminate rough fish and silt from the canal.
- Since Lake Helen is on the State's endangered waters list we can anticipate funding assistance from Environmental Trust Funds, Department of Environmental Quality, the Game & Parks Commission, and possibly the Natural Resources District. Of the estimated \$1 million project cost, the City will be expected to provide approximately 10%, some of which can be in-kind.

Whiting moved, Fritch seconded, to adjourn the meeting at 11:10 a.m. Roll call vote: Yea – Kennedy, Fritch, Whiting. Nay – none. Absent and not voting – Strauser.

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Jeff Kennedy, Acting Mayor

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Connie L. Dalrymple, City Clerk