

ITEM #: 14
DATE: 02-27-24
DEPT: W&PC

COUNCIL ACTION FORM

SUBJECT: 28E AGREEMENT FOR DOTSON WETLAND PROJECT

BACKGROUND:

The Water Pollution Control Facility (WPCF) is being converted to a nutrient removal treatment technology. Separate from the work that will occur inside the treatment plant, watershed-based nutrient reducing improvements are being performed by the City. On February 24, 2021, staff executed a Memorandum of Understanding with the Iowa Department of Natural Resources to allow these off-site nutrient reductions to be banked with the Iowa Nutrient Reduction Exchange (NRE) as credit toward any future, more stringent nutrient reduction regulations imposed on the WPCF.

In partnership with the Iowa Department of Agriculture and Land Stewardship (IDALS), Ducks Unlimited, and Story County Conservation, a 20.9 acre constructed wetland is being designed northwest of Ames near the Prairie Valley subdivision. Referred to as the Dotson Wetland, it will be located at the outlet of a large county drainage district that currently discharges directly into Ioway Creek. The wetland will ultimately treat subsurface drainage from over 2,200 acres of farmed land.

Based on preliminary sizing calculations provided by Dr. William Crumpton at Iowa State University, the modeled nitrogen mass removal rate of the wetland will be approximately 22,000 pounds per year, which will be entered into the NRE annually to receive nutrient reduction credit. Wetland design is nearing completion and permitting and construction is expected to occur in 2024.

The total cost of construction for the wetland will be covered by IDALS and the wetland will be constructed on property owned by Story County. IDALS will contract for the construction of the wetland. Due to the property's topography, this will be a 'pumping-style' wetland. Following construction, the City will own and maintain the infrastructure associated with the pump station. Story County will provide vegetation maintenance as needed for the wetland. In the event of catastrophic damage, such as by significant flooding, the City and the County will share the cost of repairs.

ALTERNATIVES:

1. Approve a 28E agreement with the Iowa Department of Agriculture and Land Stewardship – Division of Soil Conservation and Water Quality and Story County for the Dotson Wetland. **It should be noted that the 28E agreement commits the City to ownership and ongoing maintenance of the pump station.**
2. Do not approve the 28E Agreement.

CITY MANAGER'S RECOMMENDED ACTION:

The Ames Water Pollution Control Facility will be converted to a nutrient removal treatment technology over a period of 20 years. To mitigate future investment beyond what is already planned for, watershed-based projects can be performed, and the resulting nutrient reduction credits can be banked.

The planned Dotson Wetland project will be constructed using funds from the Iowa Department of Agriculture and Land Stewardship on land owned by Story County.

Construction will be contracted for and administered by IDALS. Following construction, the County will manage the vegetation, and the City will own and operate a small pump station. Following project completion, the City will register this practice with the Iowa Nutrient Reduction Exchange and receive annual nutrient reduction credit for the lifespan of the wetland. Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative No. 1, as described above.

ATTACHMENT(S):

[Dotson Wetland Site Map.jpg](#)

[28E_STORY_Wetland_Agreement_updated FINAL 2.19.24.docx](#)