MEMO

TO: Cass County Commission
FROM: Bob Henderson, IT Director and Jason Benson, County Engineer
DATE: 8/16/23
SUBJECT: Update Flood Stages App

Dear Commissioners,

Over the past decade, Cass County has hosted an interactive tool that forecasts water levels throughout the county at various stages of flooding. This map is available to all members of the public at the website https://gisweb.casscountynd.gov/FloodStages/ . This allows for property owners to plan on potential flooding in their area, and is a benefit to life safety.

During flood seasons, we have seen large amounts of traffic from citizens across the entry county, as well as other local areas, hit this application. This application was created for us by our GIS Consultants, ProWest, and has served us extremely well.

Due to upcoming, mandatory security upgrades to the ArcGIS platform, the current app has unexpectedly reached end of life and requires a full rewrite to leverage new security requirements. After discussion with ProWest and the Highway Department, the attached proposal has been submitted. The Highway Department has agreed to fund this rewrite out of existing funds. The expected lifespan of this rewrite is estimated at 5 years before further updates are needed.

SUGGESTED MOTION:

Authorize the IT Director and County Engineer to purchase services from ProWest to rewrite the custom Flood Stages ArcGIS app at a one time cost of $14,790.

Bob Henderson
Information Technology Department

Jason Benson
County Engineer

PROJECT ESTIMATE

Cass County, ND
Flood Application & Critical Elevation Script Upgrade

Date: 12-1-23

Client: Kay Anderson
            GIS Program Manager
            Cass County

It's important to know

8239 State 371 NW | PO Box 812 | Walker, MN 56484
PH 320.207.6868 | FX 320.207.6869 | www.prowestgis.com | consult@prowestgis.com

- Go Live

- Provide remote access to servers
- Attend meetings
- Test application
- Provide access to ArcGIS Online
- Provide content for a help section, if desired

*If assistance is needed with client responsibilities, additional costs may apply

1. Javascript APi 4x (or current version at time of development)

2. ArcGIS Server v10.9+ (assumes application will use current Enterprise environment)

3. Functionality

   a. All current functionalities will be replicated

   b. Critical elevation script will be updated

4. Cass Specific Functionality

   a. Two river flood slider bars

   b. Twp/Sect/Range search

   c. Contour toggle

5. Interface design

   a. Due to the code needing to be completely replaced, there may be interface design changes. PWA will keep the current interface design components as close to the current placement as possible.

   b. All mobile devices will be supported.

   c. Phone design will require specific design components such as:

      i. The disclaimer may be adjusted and displayed differently for a phone user

      ii. Print button would not be activated on a phone

6. Installation

a. 1 day, remote

b. Testing and online call to review application

PROJECT COMPLETION & POST PROJECT SUPPORT

Project Completion:
The project will be completed when:

1. The application have been tested and approved by the client
2. The project close out call has been completed

Upon project close, the application and scripts will be managed and maintained by the client.

Post Project Support
PWA understands that support requests and/or general support inquiries will occur after the project is completed. We welcome those inquiries and look forward to supporting you in the future! Below are common inquiries related to general support requests.

1. If there are issues with the deliverables or if clarification is needed regarding the deliverables, contact the PWA Project Manager listed in this scope.

2. If the PWA Project Manager is contacted, after the project is completed, you may be invoiced for that call or email. The PM will discuss invoicing needs during the call. If you contact anyone other than the PWA Project Manager, after the project is completed, an invoice will be sent based on current hourly rates.

3. If the Project Manager is contacted after the project is completed, they are not available to respond, and the need is urgent *(ie: the Project Manager is on vacation or is attending a workshop)*; contact PWA's main office number for assistance: 320-207-6868 or follow directions listed on the Project Managers out of office reply (if email is used).

    a. There may be an invoice sent for the support request based on current hourly rates if Technical staff are contacted directly. The PWA Project Manager will follow up when they are available to discuss invoicing.

4. PWA asks that both the PWA Project Manager and the Technical person be copied on emails to ensure prompt service and clarification on needs and any additional fees. If at any time there is a question about an invoice or support need, contact the PWA Project Manager.

5. If there are general questions about any topic related to GIS and/or PWA Services, contact the PWA Project Manager listed in this scope. You may be invoiced for that call or email. The PM will discuss invoicing needs on the call.

PROJECT RISKS & MITIGATION

1. Stakeholders are not identified at the beginning of the project
   a. Mitigation: Client and PWA will identify stakeholders at the project kick off. If changes in stakeholders occur, they will be communicated to the stakeholders immediately to eliminate and/or minimize timeline and budget changes.

2. Stakeholders change throughout the project
   a. Mitigation: Maintain the same project stakeholders throughout the project. If stakeholders do change, it is the client's responsibility to communicate the purpose of the project to the new stakeholder or for PWA to communicate changes to the client. If the project changes due to a change in stakeholders, additional charges may apply and the timeline may be affected.

3. Changes to functionality of the application or script occur after the project has begun
   a. Mitigation: review functionality and needs prior to work starting. Communicate changes to the stakeholder group as soon as they are known.

4. Feedback. Various tasks will be completed throughout the project. It is the responsibility of project stakeholders to ensure that feedback is provided per the timelines agreed upon.
   a. Mitigation: communicate feedback/task delays to project stakeholders immediately. Project budget and/or timelines may be affected by delays

PROJECT ASSUMPTIONS

All existing application and script functionality remains.

COST ESTIMATE

$14,790.00

Invoicing Schedule: PWA will invoice monthly based on percent of project completed.

If the scope, objectives, or timeline change significantly before the project is completed, we will agree to discuss any necessary modifications to our agreed-upon fee or to the scope, objectives, or timeline of the project.

* Payment is due within 45 days of an invoice date. If payments are not received within 45 days of the invoice date, a late fee of 1.5% of the invoice amount will be charged for each 45 day cycle that the payment is late.
** 3% convenience fee will be added for payment by credit card

To proceed with the described services in this estimate, please sign and date below and return to the Project Manager listed above.

CLIENT
Acceptance Signature:

Pro-West & Associates
Signature:

_____Date:_____   _____Date:_____

Estimate valid for 90 days