

# Ratings Development Team Review Document

## Document Objective

Review conference call discussion and propose development plan.

## Conference Call Discussion

*Conference Call Notes from 6/10/2005 10am CDT*

1. Current Development Status
  - a. Currently reviewing rating curve applications to determine what pieces can be modified and which application components need to be developed.
  - b. Continue to review and finalize requirements for project.
2. Review of Rating Curve Data Collection Applications
  - a. Ratings data collection application needs to run on LDAD server.
  - b. The list of USGS rating curve station ids can be derived from a database table, if populated, for requesting rating curves.
  - c. Source of station id may be different for some RFCs. May need to consider other database tables.
  - d. Processing time and USGS site response time for requesting rating curves has been acceptable.
  - e. Flat file and database resources are being used when comparing previous rating curves with new curves to identify differences.
  - f. Other sources of rating curves need to be considered.
  - g. All USGS requests are HTTP.
  - h. Archive database table changes are being proposed during the conversion to postgres. These changes, if accepted, may be implemented in OB7 at the earliest.
  - i. Unique key issue in ratings table was suggested. Need to talk to Julie.
3. Review of GUI application.
  - a. CBRFC gui is geared toward viewing data.
  - b. Manual process is usually done in other cases.
  - c. Requirements for viewing and comparing more than one rating curve on same window.
4. Write new or modify?
  - a. May be a combination based on current applications and final requirements.
  - b. Continue to evaluate.
5. Development Process and Timetable
  - a. Break work up into data collection and graphical interface. Will need to coordinate by specifying input/output requirements between applications.
  - b. Request for source code.
  - c. Generate review document to cover plan of action.

## Proposed Application Development Plan

This is a proposed development plan for the rating curve application. This plan breaks down the application development into phases and lists the objectives for each phase.

### Phase One

*Phase one freezes requirements for this application development version, and develops the process for rating curve data requests through AWIPS.*

#### Objectives

- Finalize and freeze requirements for this version of application development. Additional requirements may be reviewed but will be added in later releases.
- Create data flow documentation for rating curve data.
- Create or modify current scripts to obtain USGS rating curve data from LDAD.
- Create or modify current scripts/configuration to send data to AWIPS from LDAD.
- Create or modify current scripts to detect changes in USGS version changes.
- Create or modify current scripts to generate a list of USGS site ids and send to LDAD.

#### Deliverables

- Freeze the list of requirements for this application development version.
- LDAD server is successfully requesting USGS rating curve data from all sites from a given site id list.
- LDAD is successfully sending rating curve data back to AWIPS for processing.
- AWIPS can successfully detect changes between rating curve versions.
- AWIPS can successfully generate a list of station ids and send it to LDAD for processing.
- LDAD can handle bulk request processing.
- Create necessary documentation explaining data flow process.
- Create necessary documentation showing data exchange specifications and protocols.
- Create necessary documentation describing how to install and configure software on LDAD.

### Phase Two

*The objectives in phase two focus on building data structures and business logic.*

#### Objectives

- Finalize the data and business logic required for this application.
- Create database structures in Postgres schema.
- Create base functions/objects for business logic.

#### Deliverables

- Document describing core business logic and database structures as related to the rating curve application
- Create rating curve database schema in development database.
- Create core tables in database.
- Create library of core functions that represent the lowest common denominator of business logic between most, if not all RFC offices.

### **Phase Three**

*Phase three begins the application development to accomplish the core functional requirements. The important objective is to get the business logic right before building the full user interface.*

#### Objectives

- Develop the functions using low-level library functions to accomplish functional requirements.
- Analyze differences between RFC and account for specialized cases.
- Develop proof-of-concept application for Rating Curve team to evaluate.
- Begin simplified graphical user interface development.
- Review user feedback related to graphical user interface and core functions.

#### Deliverables

- Create the necessary high level functions and scripts to accomplish core functional requirements.
- Provide a demonstration of core functional requirements (subset) along with proposed graphical user interface.
- Modify development based on feedback.
- Distribute core functions in alpha release.

### **Phase Four**

*Phase four completes GUI development and provides a beta version for testing.*

#### Objectives

- Complete base GUI interface for core functionality.
- Complete base functionality.
- Release beta and gather feedback.

#### Deliverables

- Deliver application that performs core functions as beta version.

### **Phase Five**

*Phase five includes any modifications to the application based on feedback and prepares the application for distribution. This phase should complete this application version.*

*TBD*