



Rouge River National Wet Weather Demonstration Project

Wayne County, Michigan

TASK PRODUCT MEMORANDUM Data Access/Privileges Data Management Work Plan No. 2, Task No. 3

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MISSION STATEMENT

The mission of the Rouge River National Wet Weather Demonstration Project is to restore the water quality in the Rouge River as necessary to:

- provide a safe and healthy environment for ourselves and future generations,
- protect downriver water resources such as the Detroit River and Lake Erie, and
- re-establish a healthy and diverse ecosystem within the Rouge River watershed.

This will be accomplished through the development, implementation, and financial integration of a technical, social, and institutional framework leading to cost efficient, and innovative, watershed based solutions to control the wet weather problems in the Rouge River watershed.

PREFACE

The Rouge River has historically suffered and continues to suffer from the combined stress of pollutant loadings from various sources. The vast majority of continuous point sources have been eliminated through the issuance and enforcement of National Pollutant Discharge Elimination System (NPDES) permits for municipal and industrial dischargers. Yet, as established in the Rouge River Remedial Action Plan (RAP), the river remains polluted primarily because of sources associated with wet weather flow.

The Rouge River National Wet Weather Demonstration Project (Rouge Project) is intended to evaluate each of the various sources of wet weather pollution; implement alternative remedial measures; investigate wet weather waste load allocations; establish associated pollutant load reductions; examine the financial and institutional impediments to wet weather pollution control; and recommend a plan and procedure for watershedwide pollution control which is "implementable" in the Rouge and can be readily transferred to similar urban watersheds throughout the country.

The effort is not being conducted in isolation. The Rouge RAP provides a baseline from which Rouge Project efforts have begun. In fact, the Rouge Project can be viewed as the key component of the initial implementation of the RAP. In addition, ongoing regulatory efforts aimed at controlling Combined Sewer Overflow (CSO) discharge have also been integrated into the Rouge Project and all construction facilities will be in accordance to NPDES permits.

It is widely recognized, and reinforced by RAP recommendations, that CSO control by itself will not be sufficient to restore water quality to acceptable levels in the Rouge River and other similar urban rivers. The project has established a watershedwide concept as its focus. Within the Rouge River watershed, a range of pollution sources have been identified. They include: traditional urban runoff, illicit connections to drainage facilities, abandoned dumps within the river flood plain, wet fall and dry fall air deposition, and contaminated sediments within the river channel and impounded lakes.

The Rouge Project has incorporated efforts to develop analysis tools, organize existing and future data, conduct field surveys, collect and analyze water quality samples, develop and implement water quality models, design and test structural and nonstructural best management practices (BMPs), and establish loadings from nontraditional wet weather sources. Additionally, it includes components that will involve watershed residents in pollution control planning, and will study the institutional structure and financial capabilities of those entities responsible for long term implementation of the recommended watershed plan.

To efficiently manage an effort with diverse objectives, the project has been divided into ten program elements. Each of these has a specifically defined technical or operational purpose. Within each of these elements, work plans are developed to define specific activities to be performed as part of the project. These work plans define the Tasks and level of effort.

The program elements that have been established are as follows:

- Geographic Information System (GIS) and Mapping
- Data Collection and Management
- Sampling and Analytical Program
- Modeling and Decision Support System (DSS)
- Nonpoint Source Best Management Practices (BMPs)
- Combined Sewer Overflow (CSO) Design, Build and Test Facilities
- Value Engineering
- Public Information and Involvement
- Financial and Institutional
- Project Management, Coordination and Reporting

This document has been generated under the Data Collection and Management Program Element. Its purpose is to give information about the access rules, rights and privileges on the RPO computer system.

INTRODUCTION. The Rouge River Project Data Access Document is intended to give information about the access rules, rights and privileges on the RPO computer system. The document will deal with access to the UNIX workstations (SUN Sparcstation 10/30 or IPX) at the station itself or with a variety of software on equipped PC's. This document will be expanded as other available software come on-line and is intended for the "team-user". Personal user accounts will have to be approved by the Technical Manager, however, for this document user and team are synonymous.

WHO CAN USE THE SYSTEM. Anyone that has been given their teams name and password.

DEFINITIONS

ORACLE RDBMS: Relational Database Management System (i.e.ORACLE Database).

UNIX: Operating system on the SUN workstations specifically SUN O/S.

SUN Sparcstation 10/30: The server for UNIX network where ARC/INFO, ORACLE and other software reside.

IPX: A SUN station that is on the UNIX network. Referred to as a client on the server.

The teams have access on the one IPX named CREEK.

Team: Any of the established teams currently on the project. Modeling, Sampling, etc.

Hostnames:

rpo - SUN Sparcstation 10/30
creek - SUN IPX
river - SUN IPX

RDBMS personnel: Those in DATA/GIS that work with the ORACLE Database.

TEAM CONCEPT. The Team concept has been established because it cuts down significantly on system administration. If individual user accounts were to be used, the following conditions would be required:

A UNIX user account would have to be created.

An ORACLE user account would have to be created.

A user login file would have to be altered for software access, environment variables,etc.

The UNIX user would need to be added to a group for rights and privileges.

The ORACLE user would need to be granted access rights and privileges.

A password would have to be given and monitored.
The reverse of this process needs to be done if the user leaves.

When the Team user accounts are done, they can handle access by many people coming in and out of the project with little burden on system administrators.

TEAM ACCOUNTS AND RIGHTS (UNIX and ORACLE). The UNIX Team Accounts and ORACLE Team Accounts are set on the SparcStation 10/30. The UNIX Team User Accounts were also done on an IPX (Hostname CREEK).

DATABASE PRIVILEGES. There are several mechanisms of security/access involved in the ORACLE database. As you will see it can get complex. This is a brief overview intended for background information. Again user and team are synonymous.

A privilege is a right to execute a particular type SQL statement, or a right to access another users objects. ORACLE has two kinds of privileges: **system privileges** and **object privileges**. All privileges are granted by the DBA (Database Administrator).

TEAM PRIVILEGES with ORACLE

TEAM	SYSTEM PRIVS	OBJECT PRIVS
MODELING	CREATE	SESSIONSELECT on DATA / GIS tables
SAMPLING	CREATE	SESSIONSELECT on DATA / GIS tables
NPS	CREATE	SESSIONSELECT on DATA / GIS tables
CSO	CREATE	SESSIONSELECT on DATA / GIS tables
PI	CREATE	SESSIONSELECT on DATA / GIS tables
FI	CREATE	SESSIONSELECT on DATA / GIS tables

CREATE SESSION is a system privilege. It allows only connection to the ORACLE Server with the normal connect string access (i.e. sqlplus modeling/password@T:rpo:rouge) Shortcuts to the connect string will be determined.

SELECT is an object privilege. A database object is a table, view, etc. It allows SELECT (READ ONLY) to named tables. For security reasons each table is evaluated before made available to the teams.

System Privileges. There are 80 distinct system privileges. Each system privilege allows a user to perform a particular database operation or class of operations.

Examples:

CREATE SESSION - Allows connection to the database.

CREATE TABLE - Allows ability to create tables and indexes.

The higher level system privileges are very powerful, but they are only granted with caution.

Object privileges. Each type of object (table, view, etc.) will have separate privileges.

Examples:

ALTER TABLE - Allows altering (add columns, expand columns, etc.) to accessed tables.

DELETE TABLE - Allows deleting of accessed tables.

Teams. Teams can be limited to a certain amount of disk space (quota). Teams can be limited by disallowing use of an application, such as SQL*PLUS, SQL*FORMS or SQL*REPORT WRITER.

Profiles. Profiles will set resource limits on the user. It limits the users use of the database.

Items such as CPU time, idle time, connect time, etc can be altered for system efficiency.

Roles. Roles are groups of privileges. Individual privileges are granted to a created role, then the role is granted to the user or users. When new tables are loaded access rights are granted to them.

Password Security. Every Team will have a password for access. These will be changed every three months at a minimum. Team leaders will contact the RDBMS Personnel for passwords. Team leaders will be responsible to tell RDBMS who they have given their passwords to.

DATABASE ACCESS RULES

Teams. At the present time the Teams will have essentially READ ONLY access. RDBMS personnel from GIS/DATA will be doing administrative tasks such as creating tables, uploading data, insuring data security, etc. Tables and Views will be created only by RDBMS personnel on approval.

LOGIN PROCEDURES

Sun Environment

SUN login. Note: Access availability is best for Team members from the Novell Netware side with one of the PC options (*See PC LOGIN*) described below. Team members have access on the Sun Sparc 10/30 and the IPX (CREEK) when they are not scheduled by the DATA or GIS teams.

To login at the SUN type: team name <Enter> followed by password.<Enter>

Example:

login: **modeling**
password: **xxxxxxx**

This will bring you through the OPENWINDOWS setup and place you into the teams home directory. OPENWINDOWS has a file manager and other command windows to work from. To learn about OPENWINDOWS access the on-line documentation by pressing the third button on the mouse in any open area. This will bring up the icon named workspace, arrow to help and release. The help viewer will be displayed for you to read up on the sections that pertain to you. This documentation is a necessary first step to use the system.

SUN RLogin. Rlogin allows you to login to the 10/30 while being on the CREEK IPX or vice versa. After you have performed a regular login you can gain access to the other host system. (*See example below*).

Example:
login: **modeling**
password: **xxxxxxx**

Then..
login: **rlogin rpo**
rpo-modeling >> -you can use UNIX commands or access ORACLE.
Ctrl-D or logout -to return to DOS.

This will place you into the teams home directory on the 10/30. At this point you are in text mode access only, you cannot use the file manager or graphic editors.

PC Environment. Not all the PC's on the project will have the following capabilities. Check with the systems administrator for the PC's that currently have the capability to login into the UNIX network.

Dos rloginvt. Rloginvt is used at the DOS prompt to gain access to the system. Note-There currently is a small bug with this login. It is on the network administrators list. At the DOS prompt...The example is with hostname rpo.

C:> **rloginvt rpo** - rpo or creek
password ! - no password here just <return>

login: **modeling** - team name
password: **xxxxxxx** - team password
rpo% - you can use UNIX commands or access ORACLE.
Ctrl-D or logout - to return to DOS.

Windows PC/TCP DosApps. Similar to Dos rloginvt above except you are in windows.

Double click on PC/TCP DosApps

Double click on rloginvt.

Parameters- **rpo** or **creek** <return>

login: **modeling** - team name

password: **xxxxxxx** - team password

rpo% - you can use UNIX commands or access ORACLE

Ctrl-D or logout - to return to DOS.

Windows PC/TCP WinApps

Double click on WinApps

Double click on Wtnet

Host name or IP Address: **rpo** or **creek** <return>

login: **modeling** - team name

password: **xxxxxxx** - team password

rpo% - you can use UNIX commands or access ORACLE

Ctrl-D or logout - to return to DOS.

Pulldown menu Session **Exit** - exit

Save current session **No**

ACCESS TOOLS

ORACLE Browser. Browser allows the user to pick and choose their way through the ORACLE tables that they have access to. To operate, double-click on the Browser icon. This will initiate the following:

Username: **Team name** - Always TAB between data entry.

Password: **xxxxxxx** - Always TAB between data entry.

Connect: **T:rpo:rouge** - Always TAB between data entry.

Note: The maximum rows returned are 16,000 in Browser.

In the Query Window

At the Data pulldown menu

Click on **Include datasources**

The Include datasources Icon will appear, click on the down arrow next to the username.

Then click on **T:rpo:rouge**.

The users whose tables you have access to are displayed. (Use either GIS or DATA).

Click on the user and use **OPEN**.

Pick the tables desired in succession each time followed by **include**. The pick will simply record your selection and wait.
Select **OK** when done.

A representation of the table or tables will be in the Query Window. In the Query Window with the **Fields** pulldown do a **Display**, pick a field and copy. (You are building and displaying columns not actually copying) continue until finished, when you are finished pick the **Execute** and **Done** when completely done.

What you are building will display in the **Results** window area.
Close the window.

If the columns are too narrow, move the column separator with the mouse to the right. Then you can print from under the file pulldown print.

A message may appear " Printer does not support all fonts needed ". Say **OK**.

If you want a clear screen area use file new or to exit use **File Exit**.
Save changes only if necessary.

SQL*PLUS. The most basic access to the ORACLE database at the login prompt is **SQL*PLUS**.

SQL*PLUS is used for command line entry of instructions to the ORACLE RDBMS. It can be thought of as a data query tool, but it also can insert, update and delete data with the proper privileges. **SQL*PLUS** can also be used to generate a series of commands to dynamically build a program and then execute it. Structure Query Language or SQL is a English based product that allows users to extract information themselves without using a systems group. ORACLE's query language is not without structure, the key words are select, from, where, and order by.

Example :

login: modeling

password: xxxxxxxx

rpo-modeling >> sqlplus modeling/xxxxxx@T:rpo:rouge

SQL> select indid, contact, city1

2> from gis.indust

3> where indid <= 5;