

**UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
Oregon State Office  
P.O. Box 2965  
Portland, Oregon 97208**

**In Reply Refer to:**

6720/7200/1283 (OR-931, OR-932) P

November 15, 2002

EMS TRANSMISSION 11/19/2002  
Instruction Memorandum No. OR-2003-015  
Expires: 09/30/2004

To: DMs, DSDs, Branch and Staff Chiefs

From: Associate State Director

Subject: Required Use of Corporate Database and Geographic Information System (GIS) Data  
for Aquatic Resources Information

**Program Area:** Fisheries, Riparian, Hydrology

**Purpose:** This Instruction Memorandum (IM) provides direction for the required use of the following:

- The Aquatic Resources Information Management System (ARIMS)
- The aquatics field inventory protocols which support entry of data into ARIMS
- The completion of the hydrography update effort

All three components are required for effective use of aquatics data in analyses and documents to accomplish BLM business.

**Policy/Action:** The update of GIS hydrologic data that meets the OR/WA BLM and interagency standards required for housing in the Interagency Hydrography Framework Clearinghouse must be completed on all watersheds upon which the BLM administers land. Districts are to complete the updates to the hydrography dataset and participate in the interagency cooperative work to accomplish the shared development of this dataset, per the Annual Work Plan (AWP) direction. Remaining districts that have not completed the hydrography update effort should submit completed watersheds as "ARIMS Ready" per the FY03 AWP narratives. This will accomplish adequate progress in the hydrography update project in FY03 and FY04 to complete it.

Field office staff will follow the field protocols listed below to carry out inventories for stream channel assessment, water quality, macro-invertebrates, fish/fish population inventories, and the Oregon Department of Fish and Wildlife (ODFW) fish

habitat inventories. The field protocols, developed by OR/WA field hydrologists and biologists, support analysis and land management actions carried out by BLM. Data collected by field office staff on aquatic resources will be placed into ARIMS and not into personal databases, miscellaneous project GIS layers, or desk drawers. ARIMS was developed to directly support these protocols and the field data gathering sheets in the protocols. After recording in

ARIMS, it can be used to support the analyses needed for BLM business, and project GIS analysis files should be created and stored per policy on record keeping for decision-making.

**Timeframe:** Policy to be implemented upon receipt for Hydrography and ARIMS, Version 3. Version 3 includes the following: Module 1, Reaches, Sites and ODFW; Module 2 – Stream Channel Assessment; and Module 3 – Water Quality/Macroinvertebrates (released October 4, 2002). The first training for Water Quality occurred in Salem October 8-9, 2002. Version 4 – Fish Populations will be deployed in the spring of 2003. Districts should sign up for ARIMS training as soon as practical this winter (Salem has already had training.). Arrangements to delay training for any reason need to be discussed with Janis VanWyhe, ARIMS Project Manager, Oregon State Office (OSO), 503-808-6296.

**Budget Impact:** Travel and training. This policy will create savings and efficiencies as all quality aquatics data begins to be housed in a corporate application that will manage, preserve, and provide standard high-quality data for corporate use in day-to-day land management activities. Overall data collection and maintenance costs will be reduced as data is no longer housed in non-standard personal databases, miscellaneous GIS coverages, and file folders, to be lost when an employee leaves for another position.

**Background:** ARIMS has been under development for several years, and Version 3 is deployed currently in the Salem, Coos Bay, Spokane, Roseburg, Eugene, and Prineville districts. Use of ARIMS is dependent on correctly formatted spatial data. A significant effort to prepare the spatial hydrography data has paralleled the development of ARIMS. This has included OSO pre-processing, field office spatial and attribute update, and continued OSO processing to the routed format required by ARIMS. This format was agreed upon by the Pacific Northwest Hydrography Framework partnership comprised of the BLM, US Forest Service, State of Oregon, and the State of Washington. In shared areas additional work is required to integrate BLM data with that of our partners prior to submitting it to the interagency Hydrography Framework Clearinghouse. Priorities are negotiated with our partners. Adherence to this process is critical to meet our interagency agreements and to be able to use ARIMS, as other hydrographic line work in older, less advanced formats cannot be used with ARIMS.

The Hydrography Field Protocol Guide is on the OR/WA GIS website. Two teams of OR/WA BLM field office hydrologists and fisheries biologists collaboratively identified these protocols earlier in the development of ARIMS. The protocols include standard methodologies viewed as “credible science” in the BLM Pacific Northwest environment and allow choices of acceptable protocols to fit various analysis needs. They include the following:

1. Stream Channel Assessment, OSO, BLM
2. Methods for Stream Habitat Surveys, Aquatic Inventories Project, ODFW

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3. Water Quality Evaluation, OSO, BLM (pending; will be issued with ARIMS V. 3)
  4. Fish Populations, OSO, BLM (pending; will be issued with ARIMS V. 4)

**Manual/Handbook Sections Affected:** None.

**Coordination:** ARIMS has a network of identified data stewards who coordinate the users log-ins, program management, training, and data quality assurance. The Hydrography Update project also has a network of data stewards. The latter have been responsible at the field level for the hydrography update effort and the delineation of hydrologic 5<sup>th</sup> and 6<sup>th</sup> field boundaries.

**Contact:**

ARIMS: Janis VanWyhe, OR-932, ARIMS Project Manager, 503-808-6296; Al Doelker, OR-931, OSO Fisheries Biologist, ARIMS Fisheries Data Steward, 503-808-6067; Kristin Bail, OR-932, OSO Hydrologist, ARIMS Hydrology Data Steward, 541-416-6790

Hydro Update Project: Dan Wickwire, OR-955, OSO Hydro Update Project Manager,  
503-808-6272; Chester Novak, OR-080, Hydrologist, Statewide Hydrology Data Steward,  
503-375-5626

**Districts with Unions** are reminded to notify their unions of this IM and satisfy any bargaining obligations before implementation. Your Servicing Personnel Office or Labor Relations Specialist can provide you assistance in this matter.

Signed by  
Charles E. Wassinger

Authenticated by  
Mary O'Leary  
Management Assistant

1 Attachment

1 - [ARIMS Version 3 Release Document](#) (2 pp)

#### Distribution

WO-230 (204 LS) - 1

WO-220 (204 LS) - 1

OR-931 (Al Doelker, Joe Moreau) - 2

OR-932 (Rosemary Mazaika, Janis VanWyhe, Kristin Bail, Nancy Diaz) - 4

OR-955.2 (Dan Wickwire, Georgia Bosse, GeGe Coleman [Titan]) - 3

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### **Release of ARIMS Version 3.0**

We are pleased to announce the release of ARIMS Version 3, which includes the Water Quality module, several new ArcView\_ARIMS tools, and enhanced database security as described briefly below. See the ARIMS V.3.0 Training Handbook for additional details.

#### **Water Quality Module**

The Water Quality module includes the following five main components and their associated data entry screens:

1. Field Water Quality
2. Lab Water Quality
3. Macro-invertebrates
4. Water Temperature
5. Discharge

#### **New Tools in AV\_ARIMS**

1. Reach Mileage
2. Points to Sites
3. **Copy and Paste**
4. Reach Splitter

#### **Enhanced Security**

The ARIMS database security has been enhanced. Under the new security system, each site and reach record in the

database is assigned a district ID code. District ID codes may identify a single district (e.g., Salem) or a combination of districts within which a watershed falls (e.g., Salem and Eugene). Authorized editors can add a new data record to any watershed. ARIMS assigns the district ID of the user to the new record. Authorized editors can then only edit or delete records assigned a district ID code that includes his or her district. For example, an authorized Prineville editor can modify or delete any editable record assigned the single district ID for Prineville or a combination district ID that includes Prineville, i.e., he/she can modify or delete only data entered by employees from his/her own district. Un-editable data, such as ODFW or Hydrography Clearinghouse data, will remain un-editable to all editors. Specific detail is available in the Training Handbook, Version 3, Chapter 8, page 2.

### **Documentation for ARIMS V. 3**

The following documents related to ARIMS V.3 can be accessed on the State Office GIS website at [www.or.blm.gov/gis/resources/documents](http://www.or.blm.gov/gis/resources/documents):

1. ARIMS Handbook 2: Water Quality Evaluation, Discharge, and Macro-invertebrates (field data collection protocols)
2. The Version Description Document (VDD)

Attachment 1-1

3. ARIMS Data Dictionary
4. ARIMS Training Handbook, Version 3
5. ARIMS User Guide to support Version 3 is in the final stages of development and will be available by the end of October on the website. In the interim, the ARIMS User Guide for Version 2 remains online at the above URL.

### **ARIMS Training**

The following ARIMS courses are available to train ARIMS users in Oregon and Washington field offices. The courses may be scheduled individually or two back-to-back courses may be scheduled in the same location during the same week. Trainees attending the Stream Channel Assessment or Water Quality courses should be familiar with the tools and skills covered in the Introduction to ARIMS course. Basic ArcView proficiency is a prerequisite for all courses. To schedule one or more courses, your district hydrology or fisheries data steward or the GIS coordinator should contact Jeremy Hruska at 503-808-6433 or [jhruska@or.blm.gov](mailto:jhruska@or.blm.gov).

1. Introduction to ARIMS – 2 ½ days
2. The Stream Channel Assessment Module – 1½ days
3. The Water Quality Module – 1 day

Attachment 1-2