Forest Road Inventory Assessment System

As of January 2024, the new Oregon Private Forest Accords (PFA) rules are in place. One of the new rules involves forest roads, and avoiding or minimizing the delivery of sediments to waters of the state. MB&G is developing a database system to help guide our foresters as they work within these new rules: the Forest Road Inventory Assessment (FRIA) system.

After thoroughly reading and understanding the new roads rules in the PFA, MB&G staff forester, Hunter Black-Priest, determined MB&G would benefit from a new system to make it easier for our foresters to comply with rule changes for roads. Hunter worked to determine what data needed to be collected under the new rules, and how to guide our foresters on when and how to collect the data inventory.

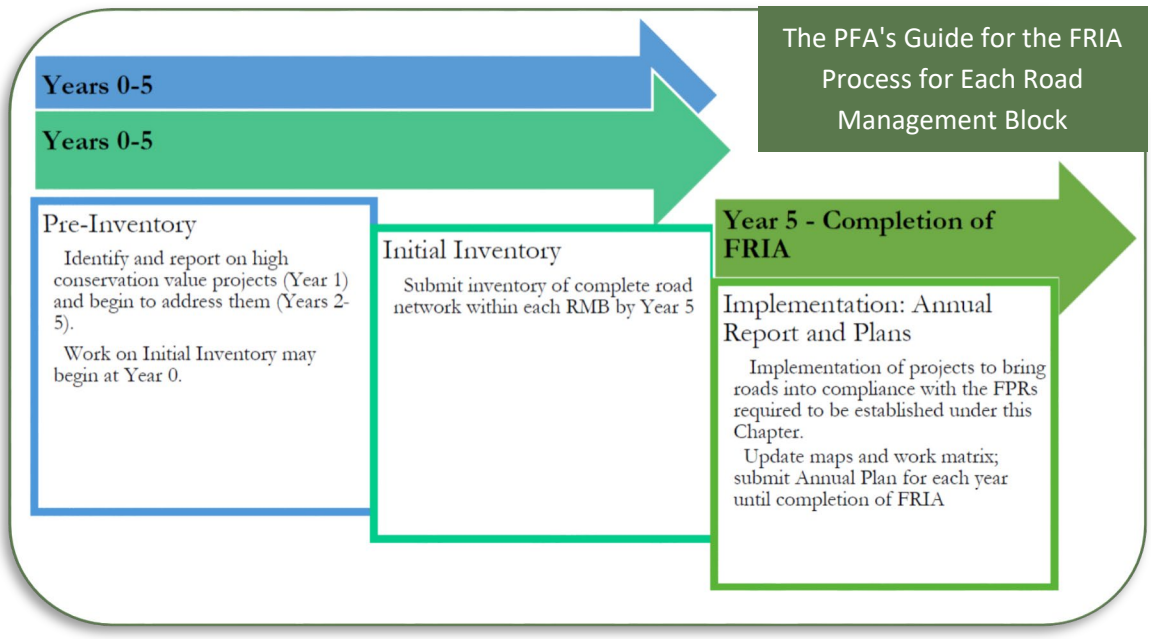
MB&G Project Staff

Hunter Black-Priest	**Taylore Wille**
Project Coordinator	System Developer

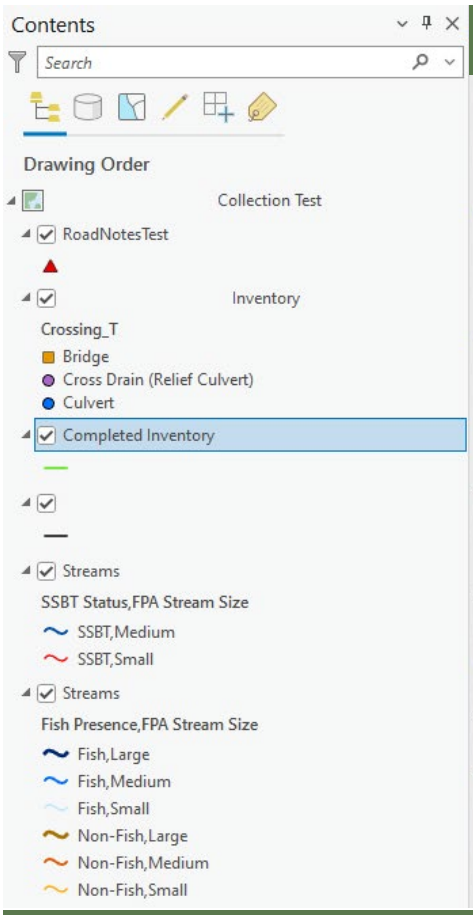
MB&G's geospatial specialist, Taylore Wille was brought in to develop the system and create a linear references system (LRS) for managing the data. The LRS system involves layers used in field maps to collect the data, and guides how the data will be stored. Field maps is an ESRI mobile app used for field data collection, map viewing and real-time location sharing and MB&G uses field maps to collect inventory data. Test layers were created in field maps before beginning the process of creating layers for our clients. Taylore made a system that is simple to use, but also as in depth as possible for the data types. This allows MB&G to have the most information on our roads systems and know what data is needed to be compliant, and will help streamline reports and submissions to Oregon Department of Forestry (ODF) that will be needed in the coming months.

Hunter also developed an internal FRIA Collection Guide to be used as a quick reference for individuals collecting data. The guide includes definitions, a walkthrough of field maps, what meets forest practices rules, and information on the data to be collected.

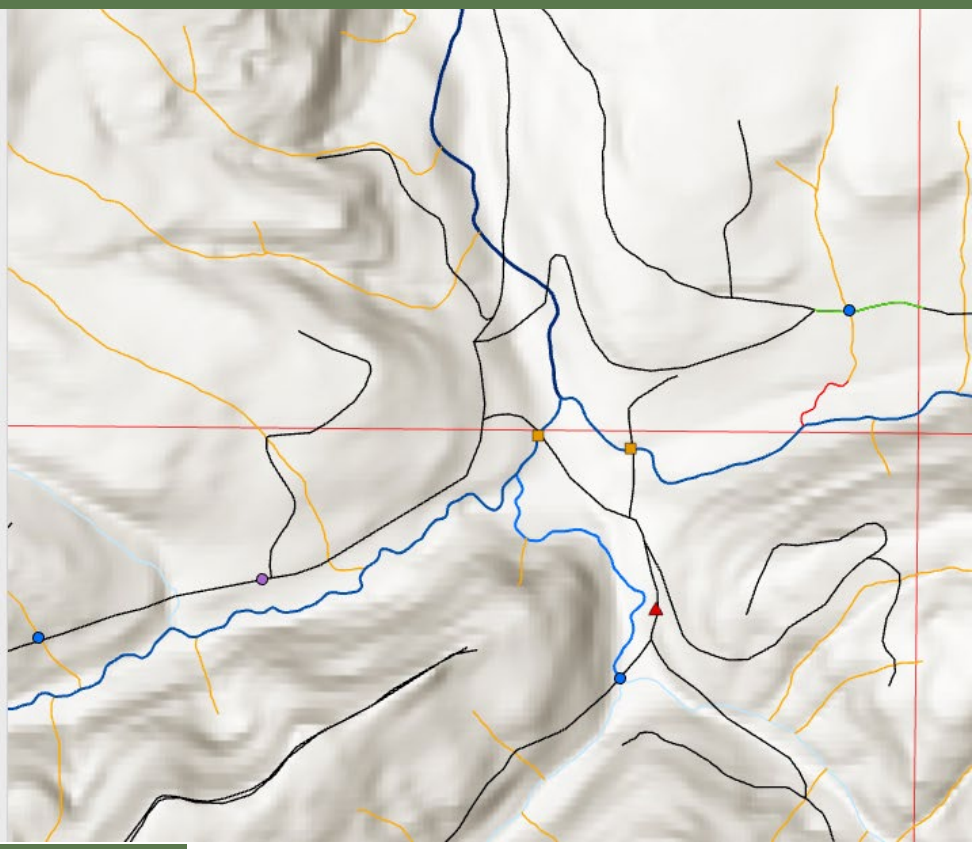
In addition to creating and setting up the FRIA system, MB&G has started the first step of the FRIA process: the pre-inventory. The pre-inventory includes a list of high conservation value sites that MB&G will need to submit to ODF at the end of 2024.



Recently, MB&G staff were brought on a field tour with ODF to assess road segments and culverts. Different scenarios were discussed and staff were able to demonstrate to ODF the new inventory process MB&G is implementing.

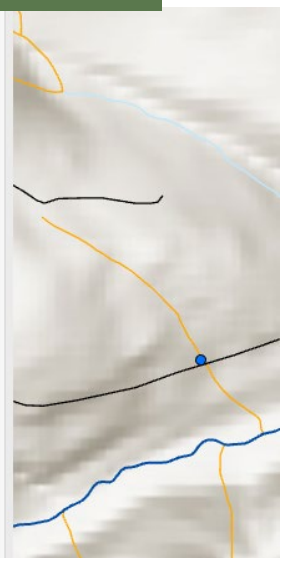


Example of a map set up for collection for through the FRIA system



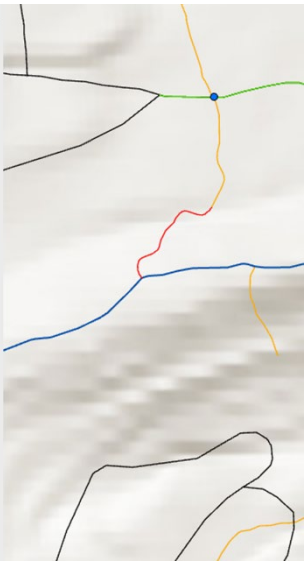
Below: Pop ups of the culvert and road inventory.

FID	2
Crossing_T	Culvert
Material	Metal
Culvert_St	Undetermined
Diameter	21
Slope	6-10%
Length	40 ft
Embedment_	0%
InletOutle	Intact
InletOut_1	Stable
InletOut_2	Potential Sediment Deposits
Hydrologic	Connected
Peak_Flow	50
Fish_Passa	N
Barrier_Ty	
Barrier_St	
Comments	
Date_Insta	<Null>



Completed Inventory -

BLMRDNUM	20-5-29.0
USFSRDNUM	
COUNTYRDNU	
OTHERRDNUM	
ROADNAME	
ROADNAME2	
CONSTRYEAR	0
GIS_Miles	0.086651
MU	Lorane
OWNERSHIP	Private
CONTROL	Private
Surface_Ma	Rocked
Road_Class	Mainline
Road_Type	Active
FPA_Class	
Surface_St	Stable
Surface_Co	Uneven Road Surface
Ditch_Pres	Yes
Ditch_Funt	Functioning
Ditch_Cond	NA
Hydrologic	Connected
Cut_Fillsl	Stable
Cut_Fill_1	
Erosion_Co	Yes
Erosion__1	Ditch



The internal FRIA system is not only beneficial for MB&G foresters internally, but the new system will be implemented for our clients and their projects in order to streamline the process and provide the best data within the new PFA rules. The system is beginning to be used for all larger landowner clients, private and public, with plans to expand.