List of Documents Developed by the BSLRP Team
Updated: November 2, 2016

1. **Gillespie, B.; Fisher, C. September 2015.** BSLRP Hazardous Fuels Prioritization GIS Analysis.
    - This planning tool has been applied in several forests throughout the region, including the Flathead and the Bitterroot National Forests. See below for details.
2. **Fisher, C. March 2016.** BSLRP Processed LIDAR Data Notes and Processing Tool Box.
    - Lidar data collected for the BSLRP project has been used for implementation planning for various projects in the region. See below for details.
3. **Bassman, J.H. 2015.** Forest Plan Objectives and Management Direction: Forest Vegetation Components.
4. **Bassman, J.H. 2015.** Understanding Ecological Divisions and Biophysical Classification for the RIBS Project.
5. **Bassman, J.H. 2016.** Fragstats Data Preparation.
6. **Bassman, J.H. 2016.** Methods Used by Hessburg for Estimating Departure of Present Forest Landscape Patterns from Historical Reference Condition.
7. **Bassman, J.H. 2016.** Proposed Process for Collecting and Attributing Airphoto data for Subwatersheds in the BSLRP project area.
8. **Bassman, J.H. 2016.** Rationale for Using the Hessburg-Reynolds Landscape Evaluation Approach in the BSLRP Project Area.
9. **Bassman, J.H. April 2015.** Biophysical Units and Potential Vegetation in the BSLRP Project Area.
10. **Bassman, J.H. August 2015.** Existing Vegetation in the BSLRP Project Area.
11. **Bassman, J.H. August 2015.** Terrestrial Ecological Restoration in the BSLRP Project Area: A proposed Framework and Rationale.
12. **Bassman, J.H.; Gillespie, B. 2014.** Three Rivers Restoration Initiative: Purpose, Context and Scope.
13. **Bassman, J.H.; Gillespie, B.; Fisher, C. June 2016.** Natural Range of Variability in the BSLRP Project Area (Draft).
14. **Bassman, J.H.; Gillespie, B.; Fisher, C. May 2015.** Disturbance Factors Driving Ecological Pattern and Process in the Blackfoot Swan Landscape.
15. **Fisher, C. December 2015.** BSLRP VMAP Landscape Analysis Attributes.

16. **Fisher, C. March 2015.** BSLRP GIS Data Management Plan.
17. **Fisher, C. May 2016.** BSLRP Flammap Modeling GIS Data Preparation Process.
18. **Fisher, C. May 2016.** BSLRP Fuel Hazard Prioritization Revised GIS Process.
19. **Fisher, C.; Sims, W. February 2016.** BSLRP Road Analysis for Assessment.
20. **Ingegno, A.S. September 2015.** BLSRP Proposal for Rare Plant Species Distribution Model.
21. **Sims, W. April 2016.** BSLRP Aquatic Existing Condition.

List of Maps Produced by BLSRP Team

1. VMap Data within the Swan-Blackfoot Watersheds, February 2015.
2. BSLRP Project Area with Farm Bill Section 602 Areas, March 2015.
3. BSLRP Subwatersheds by CRB ESR, March 2015.
4. Lidar Project Areas in the Proposed BSLRP, March 2015.
5. Lidar Project Areas in the Proposed BSLRP, April 2015.
6. BSLRP Lidar Project Areas, July 2015.
7. Proposed Blackfoot Swan Landscape Restoration Project Past and current Projects, August 2015.
8. Ownership within the Proposed BSLRP Project Area, August 2015.
9. BSLRP Project Area with Farm Bill Section 602 Areas, September 2015.
10. BSLRP Fire Groups Ruleset, November 2015
11. BSLRP Subwatersheds by CRB ESR, April 2016.

Highlights and Applications of BSLRP Products

- **Gillespie, B.; Fisher, C. September 2015. BSLRP Hazardous Fuels Prioritization GIS Analysis.**
    - Fisher, C. May 2016. BSLRP Fuel Hazard Prioritization Revised GIS Process.
    - Fisher, C. May 2016. BSLRP Flammap Modeling GIS Data Preparation Process.

The Hazardous Fuels Prioritization Analysis is a planning tool developed by the BSLRP Team that classifies priority areas based on the following elements: the risk of fire starting, the hazards associated with fuel conditions that affect fire behavior, and the proximity to high valued resources and

infrastructure. It is an effective and innovative tool that managers can use to assess large landscapes to determine the priorities for potential hazardous fuels treatments, or to identify those values that may be at risk from a wildfire.

This tool is currently being used by the Flathead National Forest for project planning. Additionally, the Bitterroot National Forest ran an analysis with this tool that is currently under review, and Fuels Specialists from the Helena-Lewis and Clark NF will be meeting with the BSLRP team in the near future to discuss potential uses for project level planning. This product also has the potential to be used by the Northern Region as a risk assessment tool. The National Cohesive Wildland Fire Management Strategy encourages Regions and Forests to develop analyses like the BSLRP Hazardous Fuels Prioritization, making this tool align well with agency goals and initiatives. Lastly, the foundation for this analysis uses existing data bases within the region, and therefore, it will be updated and maintained with consistent information and protocols.

- **Fisher, C. March 2016. BSLRP Processed LIDAR Data Notes and Processing Tool Box**

The Blackfoot Swan Landscape Restoration Project (BSLRP) had 28 LIDAR project areas (about 365,000 acres), acquired from 2013 to 2015. The LIDAR data covers approximately 40,000 timber stands across the three ranger districts in the project area, and was acquired to help improve the mid-scale vegetation assessment for several forest metrics. The LIDAR data is well suited for project implementation planning, and has been utilized for BSLRP and in other projects in the region.

BSLRP: The bare earth imagery and high resolution Digital Elevation Model obtained from the LiDAR investment with BSLRP allowed for:

1. Identification of existing roads not inventoried in our current corporate GIS dataset, primarily roads on recently acquired lands (this will allow focused (efficient) field recon work to gather the missing data),
2. Confirmation of the accuracy of the existing transportation line work, i.e. visual comparison of road locations compared to flat road prisms detected using LiDAR (this identifies areas where GIS spatial correction should occur),
3. High resolution DEMs were utilized to prepare a much more accurate stream network (using NETMAP), which was then used in the sediment delivery modeling (GRAIPLITE), resulting in more precise identification of potential road/stream sediment delivery points (this should reduce the number of road segments reviewed by field crews, increasing their efficiency).

LIDAR Application on Other Projects: The data was utilized on the Center Horse project in the Helena-Lewis and Clark NF for a variety of stream channel restoration work, including stream channel realignments. The data also enabled a range of road analysis work in Center Horse. In the Lolo National Forest, BSLRP lidar data was used for stream channel restoration design in the Cottonwood Creek project. The BSLRP team is working with the regional office to assess other applications of this data throughout the region.