

**Board of County Commissioners  
Workshop**

**Staff Report**

**Meeting Date:** March 21, 2016

**Presenter:** Susan Johnson

**Department:** Planning and Development

**Subject:** Focal Habitat Feature Project  
Update

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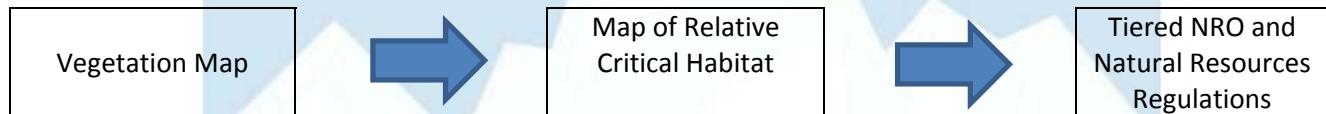
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**Statement / Purpose:**

To discuss issues associated with Biota's Focal Habitat Feature report and mapping product, and next steps before the update to the NRO mapping and natural resource protection standards of the Land Development Regulations (LDRs) occurs.

**Background:**

On August 20, 2013 the Board of County Commissioners approved a notice of award to Biota Research and Consulting (Biota) for the Focal Habitat Feature project. Biota was tasked with identifying areas that are crucial to the health of native species and describing the relative value of the landscape between these crucial areas. The overall purpose of this project is to implement Principle 1.1 of the Comprehensive Plan—*Maintain healthy populations of all native species*. This project is listed as Strategy 1.1.S.2 described in the Comprehensive Plan as follows: *Identify focal species that are indicative of ecosystem health and determine important habitat types for those species. Evaluate habitat importance, abundance, and use to determine relative criticalness of various habitat types*. The Focal Habitat Feature project, along with the previously completed Vegetation Mapping project, will ultimately create the foundation for a revision to the Natural Resources Overlay and natural resource protection standards.



A contract between Teton County and Biota was signed on November 5, 2013, which was based upon time and materials and included a not to exceed cap of \$86,504.00. The contract also included a timeline for project completion, which was to occur by July 2014. The Board granted Biota a time extension to complete the work by July 1, 2015. The final project report was submitted to the County in August 2015 along with a detailed accounting sheet that showed the total project cost at \$254,421.10. Teton County paid the not to exceed amount of \$86,504.00.

**Expert Review:**

The Natural Resources Technical Advisory Board (NRTAB) generated a list of experts to peer review the methods employed and the resulting maps generated by the Focal Habitat Feature project. In general, the reviews were not favorable and there was much criticism regarding the data, methods, and maps.

Some reviewers applauded the use of data to derive the maps. However, others took issue with observational data being biased toward open habitats where wildlife are most visible, that carnivore data was not included, that migration corridors were not included, and that some data sets are geographically biased. It should be mentioned that data-sharing agreements required Biota to destroy the data once they were finished with the study so the data could not be used for other purposes; therefore the County would have to recollect the raw data used in the study to put it to any additional use.

Many reviewers questioned the habitat model methodology stating that a standard method (e.g. RSF modeling) was not used, that the histogram method used by Biota is not scientifically valid, and that multipliers were not explained. Reviewers also questioned the method of quantifying relative value, stating that important variables (e.g. snow depth) were ignored, habitat was identified in a binary fashion, and many reviewers noted that there was too much undocumented subjectivity in the methods, which causes the project to not be replicable.

Wyoming Game and Fish (WGFD) cannot endorse Biota's final product, but agreed to try and help the County "fix" the maps. However, upon receiving one improved mule deer map from WGFD it became clear that fixing the maps involved a complete re-do of all of the species modeling, as well as creating a methodology to layer the resultant maps together to map relative value, as envisioned by the Comprehensive Plan.

The Focal Habitat Features product was supposed to combine the vegetation mapping with wildlife data in a model that produced a scientific determination of the relative critical value of habitat, which could then be refined by expert opinion if necessary. Upon expert review of the work produced it became clear that it must be redone before it can be refined.

#### **Alternatives:**

The following options need to be considered by the Board as the County moves forward with its work plan for the LDR revisions for Fiscal Year 2017:

1. Use the product that we have from Biota as an expert opinion of relative critical value of habitat and begin natural resource LDR updates without a scientifically supported map of relative value; or
2. Re-bid the Focal Habitat project to obtain a study of relative critical value of habitat that is replicable and supported by the scientific community, which will inform natural resource LDR updates.

#### **Pros and Cons**

Both alternatives have pros and cons. Alternative #1 would allow the County to immediately begin creating a tiered NRO map and begin updating the natural resource standards in the LDRs without additional time and money being spent. The con to Alternative #1 is that the basis for our maps and regulations is not supported by the scientific community, including WGFD, and is not replicable for future updates to the map.

Alternative #2 will have the benefit of collaboration with WGFD, rather than WGFD simply reviewing the end products. The NRTAB, along with WGFD, will collaborate with the consultant to ensure a transparent methodology is used, which will result in a scientifically derived product that is replicable. The con to Alternative #2 is the cost of additional money and time, although staff will continue to explore partnerships with other agencies for assistance with this effort.

Recommended changes to the RFP so staff and the NRTAB can ensure the mapping product and methods are scientifically supportable include:

- Using defined terms in the RFP to facilitate understanding of the proposal by all parties and establish clear expectations;
- Requiring periodic meetings where the consultant routinely checks in with NRTAB and staff to ensure the methods being used are appropriate; and
- Requiring specific deliverables to be submitted and reviewed before invoicing and payment occurs.

#### **Recommendation**

Staff recommends Alternative #2, as it is supported by both the NRTAB and Wyoming Game and Fish. The NRTAB and Staff, in collaboration with WGFD, have outlined the next steps as follows:

1. Draft an RFP (in collaboration with NRTAB and staff) that includes specific tasks as follows:

- a. The selected consultant will identify 15 to 18 focal species (in collaboration with NRTAB, staff, and WGFD)
- b. The selected consultant will identify preferred habitats of those species (including vegetative covertypes, slope, aspect, elevation, etc), as well as other areas used by the species during their life cycle such as known migration routes and calving areas. This information will be reviewed by NRTAB and WGFD.
- c. The selected consultant will connect the habitats to the County's vegetation maps, digital elevation models, etc. to produce maps for each of the identified focal species. Those species maps will be reviewed by WGFD and NRTAB, and other groups with specific knowledge of those species (e.g.: Greater Sage Grouse Working Group), and edited to correct obvious errors. The maps will then be validated with data, when available.
- d. The selected consultant will utilize the focal species maps to establish relative critical values for different habitats using best available technology. This technique to create this map, as well as the map itself will be reviewed by WGFD, NRTAB and other experts in the field, with comments being used to correct the map to match known use on the ground.
- e. The selected consultant will provide any additional recommendations on mapping production and technology in an effort to produce a more accurate and reproducible product. In addition the consultant will provide recommendations on when the map should be updated, with a method and framework describing how to update the map.

2. Board of County Commissioners reviews and approves the RFP.
3. Board of County Commissioners reviews the applicants' proposals for selection.
4. Board of County Commissioners awards a contract to a consultant.

**Cost and Timing:**

Using the above-described method, it is estimated that the project will cost approximately \$45,000 and be completed within 6 months from the time of consultant selection. An RFP can be prepared as soon as the Board directs staff to move forward with Alternative #2, which will be considered at their April 15 meeting as part of the Fiscal Year 2017 Implementation Plan.

**Attachments:**

- Expert reviews of Biota's report
- Biota's Focal Habitat Feature Identification Project report and sample map