1. Overall Comment:
    a. The proposed credit procedure is based on an increased volume of *storage* in the filter media. This only applies if there is enough water available on the surface to fill the voids and replace the surface storage. Otherwise, you are just replacing surface storage with underground. With a standard 1.75 in./hr. filtration rate 14 hours are required to fill the voids in a 2 ft layer of filter media. Most water quality (1") storms are 30–60-minute duration. During a 1-hour storm only the top 2" of the media provides storage in addition to the surface storage. After the runoff into the facility stops the facility surface storage is only draining through more voids in the media to the underdrain. *There is no increased storage at that point*.

2. Page 1.
    a. The biochar changes the filtration rate not infiltration. The underlying soil and restricting factors (high ground water seasonal high-water table and bedrock) are unchanged. Even amending the existing soil only creates higher "infiltration rates" until the voids in the biochar are filled. Then the underlying soil conditions control.
    b. How does denitrification occur in an aerobic environment? Above an underdrain, the filter media will be aerobic.
    c. Road salt is completely dissolved. Our measurements internally show that concentrations of specific conductance are unchanged passing through the media based on inlet and outfall results using automated samplers.

3. Page 5.
    a. Replace "pea gravel" with washed no 8 stone. This is the standard manufactured stone specification.

4. Page 7.
    a. Through internal estimates, with standard ratios of bioretention surface area to DA/IA and 2 feet of media, it should be 20-30 years before the media needs to be replaced. This would need to be verified.

5. Page 8.
    a. How is the proposed runoff reduction increase of 20% calculated as it seems like it is just adding volume in place.

6. General Comment:
    a. Maintenance, replacement, and spec guidelines for the biochar application to reduce concerns of substandard material and potential remobilization.