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March 6, 2026

Andover Conservation Commission
Town Office
36 Bartlett Street
Andover, MA 01810

Re: Second Peer Review of the Stormwater Design
100 Old River Road, Andover, Massachusetts
MassDEP File No. 090-1459

Dear Chairman Cooper and Members of the Commission:

The Horsley Witten Group, Inc. (HW) is pleased to provide the Andover Conservation Commission with this letter summarizing our second peer review of the stormwater and invasive species management for the proposed commercial redevelopment located at 100 Old River Road in Andover, Massachusetts. We understand that Goddard Consulting LLC on behalf of JMC/SVP Old River Road LLC (Applicant) has submitted a Notice of Intent (NOI) to redevelop the 9.61-acre parcel. The Applicant is proposing the demolition of the existing building, and the construction of a larger, mixed-use building and parking garage, utility improvements, surface parking, two new points of access, outdoor amenities, and stormwater management. The stormwater management includes six subsurface infiltration systems, two bioretention areas, multiple new deep-sump hooded catch basins, and eight water quality units. The parcel contains two bordering vegetated wetlands (BVW). The larger BVW is associated with an intermittent stream along the southern portion of the parcel. The existing impervious areas extend into the 50-foot No-Build Zone and the 100-foot Buffer Zone.

## Peer Review Progress to Date

HW provided the Andover Conservation Commission with an initial peer review of the materials in a letter dated February 19, 2026. The Applicant submitted a response to our comments, dated March 4, 2026, along with supporting documentation. Here, we include our original sequentially numbered comments, along with a summary of the Applicant's response, and any additional comments with the date corresponding to the date of this letter. We have included our original comments in grey font so that new comments are more prominent. Where applicable, we have included recommendations for **Special Conditions**, as indicated with **bold underlined text**.

## Materials Reviewed

The following additional documents and plans were received by HW in response to our initial peer review letter dated February 19, 2026:

- Response to Initial Peer Review of the Stormwater & Invasive Species Management, prepared by Goddard Consulting, dated March 4, 2026 (11 pages):
- Invasive Species Management Plan for The Commons at River Road, 100 Old River Road, Andover, MA, prepared by Goddard Consulting LLC, revised March 4, 2026 (24 pages);
- Response to Peer Review Comments, prepared by Bohler Engineering, dated March 4, 2026 (6 pages);
- Supplemental Drainage Memorandum for Proposed - The Commons at River Road, 100 Old River Road, Andover, Massachusetts, prepared by Bohler Engineering, dated March 3, 2026 (125 pages); and
- Site Plan Review/Special Permit Set for JMC/SVP, Proposed – The Commons at River Road, Andover, Massachusetts, prepared by Bohler Engineering, dated January 9, 2025, revised March 3, 2026 (24 sheets) which includes:
    - Cover Sheet C-101
    - General Notes and Legend C-102
    - Overall Site Plan C-301
    - Site Plan A C-302
    - Site Plan B C-303
    - Overall Grading, Drainage, and Utility Plan C-401
    - Grading Plan A C-402
    - Grading Plan B C-401
    - Utility Plan A C-501
    - Utility Plan B C-502
    - Soil Erosion and Sediment Control Plan C-801
    - Erosion and Sediment Control Notes and Details C-802
    - Construction Details C-901 – C-903
    - Overall Landscape Plan L-100
    - Landscape Plan A L-101
    - Landscape Plan B L-102
    - Lighting Plan A L-201
    - Lighting Plan B L-202
    - Landscape Details L-300 – L-303

## Stormwater Review

HW has reviewed the documents listed above and has the following comments concerning the stormwater management design in accordance with the Massachusetts Stormwater Handbook (MSH) dated February 2008 and the Town of Andover Stormwater Management and Erosion Control Regulations amended May 11, 2021 (Stormwater Regulations).

In accordance with Section VI. B. of the Andover Stormwater Regulations the Stormwater Management Permit and Narrative provided by the Applicant shall contain sufficient information to verify compliance with the local Stormwater Bylaw and the MassDEP Stormwater Management Standards (MSWMS). Below are comments relating to the standards as presented in the MSH. Where the more stringent requirements of the Andover Stormwater Regulations are applicable, those comments are included.

1. Standard 1: No new stormwater conveyances (e.g., outfalls) may discharge untreated stormwater directly or cause erosion in wetlands or waters of the Commonwealth.

    a. The Applicant has analyzed the pre- and post-development stormwater runoff for the Project Site. Under existing conditions, two design points have been evaluated:

        (1) Design Point 1 (DP1) is the small BVW in the eastern portion of the site, delineated with wetland flags D-1 through D-11. Three existing catch basins within the northeastern parking area appear to discharge to DP1 via a flared end section near wetland flag D-1.

            March 6, 2026: No further action is requested.

        (2) The second design point (DP2) is the large BVW and intermittent stream located in the southern and western portion of the site, delineated by wetland flags A-1 through A-58. The existing catch basins within the western parking lot as well as the roof runoff from the existing building appear to discharge to the BVW via a flared end section near wetland flag A-35.

            March 6, 2026: No further action is requested.

    b. Under proposed conditions:

        (1) The stormwater in the northeastern corner of the parcel would route through proposed deep sump catch basins and water quality units to subsurface infiltration system 1P before discharging to the eastern wetland (DP1). It appears that the Applicant is converting the existing catch basin that outlets into the wetland into a drain manhole with the same outlet to the discharge point.

            March 6, 2026: No further action is requested.

        (2) The stormwater from the proposed building and the remaining parking lot/driveway on the southern and western portions of the site is proposed to route through deep sump catch basins and water quality units to two Bioretention Basins and five Subsurface Infiltration Systems (2P, 3aP, 3bP, 4P, and 5P) before discharging into the larger wetland system (DP2) at the existing outfall and two new outfalls.

            March 6, 2026: No further action is requested.

c. The Applicant has provided riprap sizing calculations in Appendix F of the Drainage Report and a Rip Rap Apron and Scour Hole Detail on Sheet C-902 of the plan set. It does not appear that the Applicant is causing erosion in a wetland. However, all four outfalls are within the 25-foot no disturb zone to the resource area.

   March 6, 2026: It is the Applicant's opinion that because the two existing stormwater outfalls are within the 25-foot buffer zone it is acceptable to locate the four proposed outfalls within 25-feet of the wetlands. HW notes that the elevations of the outfalls appear to be controlled by the slope and cover over the upgradient pipes. HW believes that a waiver is required and we defer approval of the outfall locations to the Conservation Commission.

2. Standard 2: Stormwater management systems shall be designed so that post-development peak discharge rates do not exceed pre-development peak discharge rates.

   a. HW has reviewed the Pre-Development and Post-Development Drainage Maps and calculations. HW noted that the Post-Development HydroCAD model includes 1.217 acres of wood, yet the Pre-Development HydroCAD model did not include any woods. HW recommends that the Applicant revisit the Pre-Development and Post-Development land uses and revise the model as necessary or provide an explanation as to the discrepancy in land uses between the Pre-Development and Post-Development calculations.

      March 6, 2026: The Applicant has adjusted the HydroCAD model to include 1.461 acres of woods under Pre-development conditions and 1.248 acres of woods in Post-development conditions. No further action is requested.

   b. The Applicant has calculated the runoff for both the Pre-Development HydroCAD model and the Post-Development HydroCAD model, assuming that all the soils are Hydrologic Soil Group (HSG) C. However, the NCRS Soil Resource Report indicates that the soils have been classified as HSG A and HSG D. HW recommends that the Applicant justify its use of HSG C or revise the calculations using HSG A and HSG D soils.

      March 6, 2026: The Applicant has provided justification for the use of HSG C soils throughout the property. HW finds the explanation to be reasonable. No further action is requested.

   c. HW notes that the Applicant has used a Direct Entry of 6 minutes for the time of concentration (Tc) values for the two existing subcatchment areas. HW agrees that a Tc of 6 minutes for subcatchment area EX1 is reasonable. However, we recommend that the Applicant confirm there are no longer flow paths within the 6.5 acres of subcatchment area EX2.

      March 6, 2026: The Applicant has revisited the flow path for Pre-development subcatchment area EX2 as suggested. The Tc value has been revised in the HydroCAD model. No further action is requested.

d. The Applicant included two copies of the Pre-Development HydroCAD models in the Drainage Report, one of which was in Appendix E: Proposed Conditions Hydrologic Analysis. To avoid confusion HW recommends that the second copy be removed.

   March 6, 2026: The second copy of the Pre-development HydroCAD report was removed as suggested. No further action is requested.

e. On Page 4 of the Drainage Report under the Proposed Watersheds and Design Point Information section, it is written that DP1 and DP2 both receive stormwater from PR-1a. It appears that under proposed conditions DP2 receives stormwater from PR-2a through PR-2F. HW recommends that the Applicant correct this typographic error to avoid confusion.

   March 6, 2026: The narrative was corrected as suggested. No further action is requested.

f. The Applicant has provided NOAA Atlas 14 rainfall data as per the Andover Stormwater Management and Erosion Control Regulations Section IX.E.6. HW agrees with the rainfall data used.

   March 6, 2026: No further action is requested.

g. HW notes that the HydroCAD model has listed the Primary Device for Pond 2P to be a 24-inch culvert. The Plans call out an 18-inch culvert. HW recommends that the Applicant revise the plans or the HydroCAD model for consistency.

   March 6, 2026: The Applicant has increased the outlet pipe from Pond 2P to a 24-inch pipe. No further action is requested.

h. HW notes that the elevations of the stone and chambers for Subsurface Infiltration System 3aP are not the same between the HydroCAD model and the plans. HW recommends that the Applicant revise the plans or the HydroCAD model for consistency.

   March 6, 2026: The Applicant has revised the plans to match the HydroCAD model. No further action is requested.

3. Standard 3 requires that the annual recharge from post-development shall approximate annual recharge from pre-development conditions.

   a. Under existing conditions, the parcel includes 4.61 acres of impervious cover. In proposed conditions the Applicant will increase the impervious cover to 5.536 acres. It appears that the Applicant is providing adequate recharge for the total proposed impervious area though the calculations provided are for the increased cover only. The proposed project is a mix of new and redevelopment. The Applicant has stated it is complying with the requirements for new development. Therefore, it should be providing recharge for the total proposed impervious cover. HW recommends that the Applicant revise the calculations provided in Appendix F.

      March 6, 2026: HW concurs that the Applicant is required to provide recharge for the proposed increase in impervious area. No further action is requested.

b. HW notes that the depth factor used in the recharge calculation is based on HSG C soils. HW recommends that the Applicant either provide an explanation as to why HSG C soils have been used as opposed to HSG A and HSG D soils or revise the calculations using HSG A and HSG D soils as applicable.

   March 6, 2026: The Applicant has provided justification for the use of HSG C soils throughout the property. HW finds the explanation to be reasonable. No further action is requested.

c. HW could not confirm the recharge volume with the information provided. We recommend that the Applicant provides the stage storage printouts from the HydroCAD model to confirm the volumes listed for the six infiltration basins.

   March 6, 2026: The Applicant provided the stage storage printouts as suggested. No further action is requested.

d. The Drainage Report includes five blank Form 11, Section C pages that appear to be associated with the test pits located on the Site Plan in Appendix C of the Drainage Report. HW recommends that the Applicant includes the test pit data for the completed test pits.

   March 6, 2026: The Applicant has provided the soil evaluation logs as suggested. No further action is requested.

4. Standard 4 requires that the stormwater system be designed to remove 80% Total Suspended Solids (TSS) and to treat 1-inch of volume from the impervious area for water quality. The Town of Andover requires stormwater management systems to remove TSS at a rate of 90% and Total Phosphorus (TP) at a rate of 60% for new projects and 80% and 50%, respectively for redevelopment projects.

   a. Per the Andover Stormwater Regulations Section IX.D, 90% of total suspended solids (TSS) and 60% of total phosphorous (TP) are required to be removed for New Development Sites. The Applicant's calculations in Appendix F confirm the sufficient removal of TSS and TP for all best management practices (BMPs) except WQI-2 across the site. Within the Massachusetts Stormwater Handbook, Volume 3, Chapter 1, criteria to identify a discharge as De Minimis are outlined. HW was able to verify that all the criteria are met. HW suggests that the weighted TSS and TP removal calculations be done specifically for DP1 in addition to the site wide TSS and TP removal calculations, as it is a requirement that the outlets with additional controls must outlet to the same water body as the outlet with less controls.

      March 6, 2026: The Applicant has provided the TSS and TP removal calculations for DP1 as well as the Overall Site as suggested. No further action is requested.

   b. The Applicant has provided two Contech CDS water quality units. HW suggests that the Applicant provides documentation from a third party that confirms the percentage of TSS removal provided.

March 6, 2026: The Applicant has provided the third party documentation for the proposed water quality units confirming the percentage of TSS removed. No further action is requested.

c. Based on a review of the provided documents, it appears that the site is indirectly discharging to a tributary of the Merrimack River, which is identified as an impaired water body. HW recommends that the Applicant refer to the Andover Stormwater Management and Erosion Control Regulations, Section IX.D.2, and document if the Merrimack River is subject to a TMDL.

March 6, 2026: The Applicant has confirmed that the property ultimately discharges to the Merrimack River which is classified as a Category 5. A TMDL Report has not be completed for the Merrimack River. However, the Applicant is proposing to remove greater than 60% TP and greater than 90% TSS. No further action is requested.

5. Standard 5 is related to projects with a Land Use of Higher Potential Pollutant Loads (LUHPPL).

a. The Applicant notes that the proposed development is considered a land use of higher potential pollutant load because the anticipated traffic will be greater than 1,000 vehicle trips per day. Therefore, Standard 5 is applicable. Due to the placement of water quality units across the site and the calculations provided by the Applicant in Appendix F, HW agrees that 44% of the sediment is removed before the runoff enters the subsurface infiltration systems except for the De Minimis discharge coming from WQI-2.

March 6, 2026: No further action is requested.

6. Standard 6 is related to projects with stormwater discharging into a critical area, a Zone II, or an Interim Wellhead Protection Area of a public water supply.

a. The proposed development is not discharging near or into a critical area, Zone II, or an IWPA area; therefore Standard 6 is not applicable. No further action is requested.

March 6, 2026: No further action is requested.

7. Standard 7 is related to projects considered Redevelopment.

a. The Applicant identifies that the Project is proposed to increase the total impervious area at the site and therefore is not considered a Redevelopment in the Drainage Report. The Applicant states that the design was approached as if the entire site was a New Development as opposed to a mix of New and Redevelopment. In accordance with the Andover Stormwater Regulations IX.D, 90% TSS removal and 60% Total Phosphorous removal is required for New Developments. However, the Applicant references the 80% TSS removal and 50% TP removal associated with Redevelopments. While the calculations provided still show that the New Development requirements are met, HW suggests updating the Drainage Report to reflect the New Development removals.

March 6, 2026: The Applicant has updated the Drainage Report as suggested. No further action is requested.

8. Standard 8 requires a plan to control construction related impacts including erosion, sedimentation, or other pollutant sources.

    a. The proposed project will be disturbing greater than one acre of land. A Stormwater Pollution Prevention Plan (SWPPP) is required by the US Environmental Protection Agency (EPA) for land disturbance of greater than 1 acre. The Applicant has provided recommended erosion controls to be included in a SWPPP in the Drainage Report. The SWPPP should include source control and pollution prevention measures, stormwater practices to address erosion and sedimentation, stabilization measures, and procedures for operating and maintaining the proposed stormwater practices. The plan should also identify the parties responsible for implementing the plan. The Applicant has stated a SWPPP will be provided to the Conservation Commission for review prior to land disturbance. The Commission may choose to require receipt of a final signed SWPPP a minimum of 14 days prior to land disturbance as a Special Condition.

        March 6, 2026: **Suggested condition** of approval.

    b. The Applicant has provided a Soil Erosion and Sediment Control Plan as well as Erosion and Sediment Control Notes and Details. However, it is unclear what some of the line types on the Plan represent. HW recommends that the Applicant includes a legend to clarify the various line types, as well as the size of the compost filter sock. It is also unclear which trees will be protected, where the concrete waste management area will be located, and where the straw bale barrier will be used. HW recommends that the Applicant review and revise the Soil Erosion and Sediment Control Plan as needed.

        March 6, 2026: The Applicant has updated the Erosion and Sediment Control Plan as suggested. No further action is requested.

9. Standard 9 requires a Long-Term Operation and Maintenance (O & M) Plan to be provided.

    a. In Appendix G of the Drainage Report, the Applicant has provided a Stormwater O&M Plan and a Long-Term Pollution Prevention Plan. The O&M Plan has included the parties responsible, clear descriptions of how to maintain the various stormwater practices, the frequency of inspections, a budget, and a maintenance log. HW recommends that the Applicant provides a simple sketch of the locations of the stormwater practices within the O&M plan and descriptions of the various stormwater practices, so that the property owner understands what to expect.

        March 6, 2026: The Applicant has provided the simple sketch as suggested. The Conservation Commission may choose to request a final signed O&M Plan as a **condition of approval**.

    b. HW recommend that the Applicant includes the snow storage locations on the O&M Plan. The Conservation Commission may choose to request “No Snow” signage, to avoid snow being deposited into the resource area.

        March 6, 2026: The Applicant has located some snow storage areas within the surface parking lot. The O&M Sketch noted above indicates the snow storage locations as well

as the Site Plans. The Conservation Commission may choose to request "No Snow" signage, to avoid snow being deposited into the resource area as a **condition of approval**.

10. Standard 10 requires an Illicit Discharge Compliance Statement be provided.

    March 6, 2026: The Applicant has provided an signed Illicit Discharge Compliance Statement. No further action is requested.

Additional Comments

11. Within the Construction Details, Sheet C-901, details are provided for precast concrete catch basins with double grates. It is unclear which catch basins within the Grading Plans are proposed to have double grates. HW recommends that the Applicant clarify where the double grate catch basins should be installed.

    March 6, 2026: The Applicant has removed the double catch basin detail. No further action is requested.

12. Within the Construction Details, Sheet C-902, a Bioretention Cell detail is included but no elevation information is provided. HW recommends that the Applicant provides the elevation information within the Bioretention Cell detail.

    March 6, 2026: The Applicant has added elevations to the Bioretention Cell Detail on Sheet C-902. No further action is requested.

13. HW suggests that north arrows be added to the Pre-Development Drainage Area Map and the Post-Development Drainage Area Map.

    March 6, 2026: The Applicant has added the north arrows as suggested. No further action is requested.

## Invasive Species Management Plan Review

HW has reviewed the proposed Invasive Species Management Plan (ISMP) and associated Buffer Zone Mitigation Planting Plan (the "Planting Plan"), which were provided with the Applicant's NOI application as listed above. HW has compared these materials for conformance with generally accepted standards and practices, including those identified in the Massachusetts Invasive Plant Advisory Group (MIPAG) *Guidance for the Effective Management of Invasive Plants* (2012), and local regulations and policies as applicable. Our comment are listed numerically below, corresponding with our stormwater comments above.

The introduction (Section 1.0) indicates that the plans purpose is to "*create an intensive plan to eradicate and control invasive plant species located within the 25-foot No Disturbance Zone of the Bordering Vegetated Wetlands (BVW) on the subject site to provide an improved Buffer Zone as part of the site's redevelopment.*" This language suggests that invasive species will be managed within the entire project site. However, HW notes that the buffer zone mitigation plantings are limited to three portions of the 0-25 foot Buffer Strip, encompassing less than half of the available 0-25 foot Buffer Strip area associated with BVW within the subject parcel

(approximately 46%). Figure 1 within Section 2.0 provides a map of the areas where invasive species were identified, which encompasses the entire area surrounding the proposed re-development within the parcel. No plantings are proposed for the approximately 684-foot length section indicated in Figure 1 below.

Additionally, it appears that invasive species were not assessed for the entire extent of the 0-25-foot Buffer Strip that exists on the subject parcel, which exists between the roadways (i.e., Old River Road and the ramp to Route 93 Northbound) and the BVW in the northwestern portion of the parcel (see Figure 1 below).

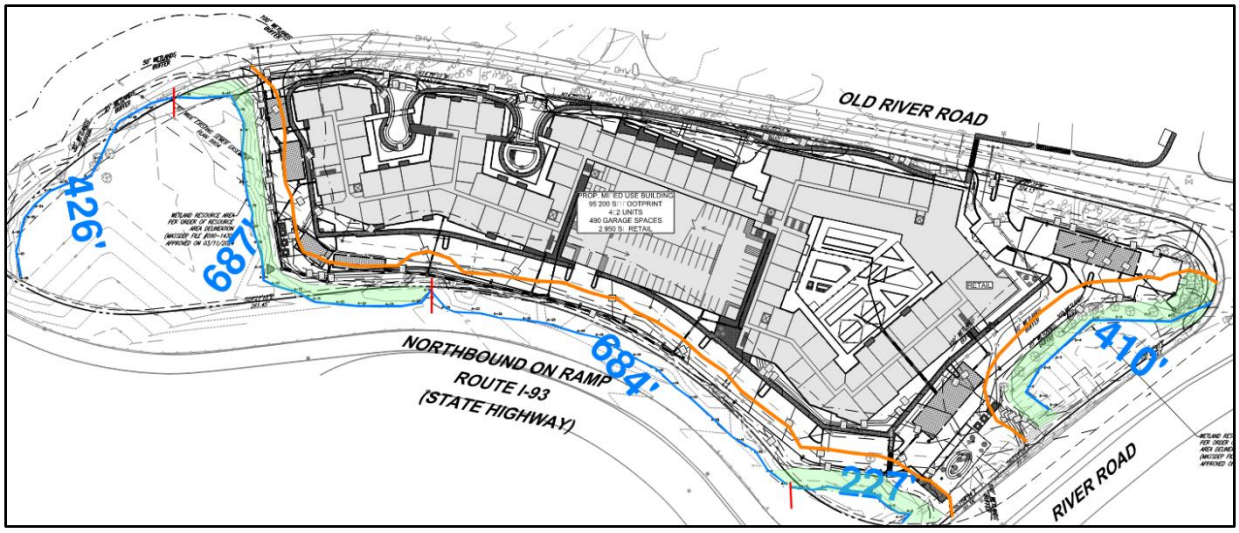


Figure 1. Screenshot of plan sheet showing BVW boundary in blue with associated linear measurements for portions of it segmented via vertical red markers; approximate extent of buffer zone mitigation plantings shown in green; 50-foot buffer zone in orange

14. HW recommends that the Applicant clarify the language in the narrative to accurately represent the extent to which mitigation is proposed[1].

    March 6, 2026: The Applicant has updated the language as suggested. No further action is requested.

The extent of buffer zone mitigation plantings does not encompass the entire 0-25 foot Buffer Strip in two of the three areas approximated in Figure 1 above, as portions of these areas appear to be as narrow as 12 feet wide (see Figure 2).

[1] See HW Comment 23 and preceding notes


Figure 2. Screenshot of proposed Buffer Zone Mitigation Planting Plan with approximate measurements showing the width of the mitigation area in red

15. HW recommends the Applicant depict the 0-25 foot Buffer Strip line clearly on the Buffer Zone mitigation plan to indicate the extent of mitigation proposed for this locally protected zone.

    March 6, 2026: The Applicant has added the 0-25 foot Buffer Strip line as suggested. No further action is requested.

16. HW recommends that the limit of work indicated in the proposed development plans be adjusted as necessary to accurately reflect the entire boundary within which activities are proposed, including invasive species management.

    March 6, 2026: The Applicant has revised the limit of work boundary on the plans as suggested. No further action is requested.

As shown in Figures 1 and 2, the proposed mitigation does not extend for the entire setback zone as designated by the local bylaw and implementing regulations, which specify that parking lots for four or more vehicles be set back 50-feet from resource areas and that access roads (except those allowed as a limited project) be set back a minimum of 35-feet from resource areas. Additionally, buildings/structures that require a building permit must be set back a minimum of 50-feet from resource areas. HW notes that the Applicant has included buffer zone lines for the 0-25 foot, 0-30 foot, 0-50 foot, and 0-100 foot buffer zones on the project plans.

17. HW recommends that the Applicant clarify the proposed development and the Planting Plans' conformance with the local setback requirements.

    March 6, 2026: The Applicant notes that additional coordination with the Conservation Commission and the Planning Board has occurred subsequent to the initial filing reviewed in HW's first peer review letter, and that these discussions have resulted in

project modifications that better align with the aforementioned setback requirements under the Andover Wetlands Protection Act. HW defers to the Commission regarding their satisfaction with the modifications, including the Applicant's characterization of the drive aisle as a "driveway" (30-foot setback applies) vs an "access road" (35-foot setback applies).

The Applicant has indicated that invasive species identified on site include "Asiatic Bittersweet (*Celastrus orbiculatus*), Glossy Buckthorn (*Rhamnus frangula*), Common Buckthorn (*Rhamnus cathartica*), Tree-of-Heaven (*Ailanthus altissima*), and Japanese Barberry (*Berberis thunbergii*)." HW notes that the Latin name for the species commonly referred to as glossy buckthorn in this region is *Frangula alnus*.

18. HW recommends that the Applicant confirm that the species identified as glossy buckthorn is that identified by the Latin name "*Frangula alnus*", rather than "*Rhamnus frangula*" as indicated in the ISMP narrative, and confirm that appropriate associated treatment methods are applied to this species.

    March 6, 2026: The Applicant has clarified which species are identified for treatment. No further action is requested.

The Applicant has specified four management zones based on species presence and prevalence in each zone. Management goal definitions identified in Section 3.0 include two categories: "eradication" and "control". These definitions are then applied to each species individually in Section 4.0, which specified that eradication is proposed for common buckthorn and Japanese barberry, indicating that the first was observed throughout the site and the second was present in sporadic clusters. Given the ubiquitous presence of common buckthorn as indicated by the Applicant, they may consider revising the prescribed management approach to "control". Control is proposed for the three remaining invasive species. HW notes that both buckthorn species look very similar and recommends that the plan includes fact sheets to aid in identifying each species to ensure that the differentiated management methods are applied appropriately.

19. HW recommends that the Applicant provide species specific fact sheets complete with photos that would allow for proper identification, including notes on how to differentiate between similar looking species, for inclusion in the proposed ISMP.

    March 6, 2026: The Applicant has added species specific fact sheets to the ISMP as suggested. No further action is requested.

As noted in Section 4.0, chemical applications are included as a management method for each species, including foliar spray (or "spraying") for Asiatic bittersweet, glossy buckthorn, and Japanese barberry. HW notes that all areas where invasive species management is proposed are upgradient to the adjacent resource area. Section 5.0 provides descriptions of the proposed treatment methods. However, a description of foliar spray (or "spraying") is not provided under the herbicidal treatment methods in Section 5.2; only more targeted chemical application

approaches are provided, including the cut-and-dab method, basal bark application, and hack-and-squirt.

20. HW recommends that any spraying of herbicides be avoided within the areas proposed for management, as these are all within the 0-25 foot Buffer Strip which slopes towards the downgradient BVWs at this site. If the Commission finds that spraying is unavoidable for select areas, HW recommends that the Applicant update the ISMP to include a description for the appropriate methodology for herbicide spraying, including limiting this treatment method to the maximum extent practicable.

    March 6, 2026: The Applicant has added foliar spray application guidance to the ISMP, including instructions to use this method "as a last resort only, after all other treatment methods are considered and eliminated as viable options", as suggested. HW defers to the Commission regarding whether this additional precaution is adequate for foliar spray herbicide application near resource areas.

As noted in Section 5.2, the herbicides proposed for use include "glyphosate (e.g., RoundUp Custom or equivalent) and triclopyr (e.g., Garlon 4 or equivalent)". HW notes that the two active ingredients identified are listed by MassDEP as appropriate for use in aquatic sites. However, the formulations are relevant. Garlon 4, for example, is not recommended for use aquatic sites including wetlands; however, it is approved for use in seasonally dry wetlands or transitional zones. HW acknowledges that the buffer zone is a transitional zone. However, because the area slopes steeply toward the resource area and the timing of herbicide application has not been specified, there is an increased potential for stormwater runoff to transport herbicide into the wetland.

21. HW recommends that any herbicide formulations utilized in the proposed mitigation areas be explicitly labeled for aquatic use (e.g., "for use in aquatic sites," "for use in and around water," or "wetland sites"), and that this detail be added to the invasive species narrative and associated plans as appropriate.

    March 6, 2026: The Applicant responded that the ISMP has been updated to specify that only herbicide formulations labeled for aquatic use will be used in the proposed mitigation areas. However, HW was unable to identify where in the ISMP this revision was made, and suggests that it be included under the Section 5.2: "Herbicidal Treatment Methods", in addition to any other appropriate sections. HW recommends that the Commission includes a **Special Condition** in any Order of Conditions (OOC) it may issue for the project specifying the approved types of herbicide allowed and/or requiring review and approval by the Commission prior to their use.

Section 6.0 describes the proposed management protocols which include standard good housekeeping practices appropriate for invasive species management, including that "*invasive species or other material removed from the study area will be loaded into a truck and disposed of off-site or stockpiled in an area to be excavated*". HW recommends that more specific language be provided in the ISMP and that associated notes be included in the proposed site development plans for the contractor's reference.

22. HW recommends that areas proposed for work where invasive species are present are clearly marked on the proposed development plans. The plans should also include notes for the contractor indicating that topsoil is not to be reused from these areas. Additionally, if temporary stockpiling of these materials onsite is unavoidable, plan notes should clearly state that any material excavated from these areas must be appropriately contained (i.e., stockpile areas must be lined and surrounded by erosion and sediment control barriers) to prevent the spread of invasive species until the materials can be appropriately disposed of off-site.

    March 6, 2026: The Applicant responded that the ISMP has been updated to "incorporate more specific language regarding handling, containment, and disposal procedures". However, HW was unable to identify where in the ISMP this revision was made, and suggests that it be included under the Section 6.0: "Management Protocols", in addition to any other appropriate sections.

    The Applicant also responded that invasive species management zones are now clearly depicted on the plans, and that the plans will be further updated to include the additional precautionary notes to prevent the spread of invasive species during construction as suggested above. If the Commission wishes to approve the project prior to these additional plan updates, HW recommends that the Commission includes a **Special Condition** in any OOC it may issue for the project requiring that the notes be added and/or that the specified precautions be taken.

Installation of native shrubs is discussed in Section 7.0. The Applicant specifies that all shrubs proposed for installation will be spaced at 8-10 feet on center. However, the ISMP narrative and associated Planting Plan do not specify whether a seed mix will be applied within the proposed mitigation areas. HW notes that the proposed landscape plan on sheets L-101 and L-102 include plantings and seed mix application for the areas specified in the Planting Plan. However, these plans do not appear to be coordinated. Incorporating an herbaceous layer would strengthen the buffer zone's ability to protect the interests of the Wetlands Protection Act (WPA) and the local bylaw, and would increase the likelihood of success for the proposed invasive species management measures. Further, all areas where invasive species management is proposed should be planted and seeded to prevent the re-establishment of invasive species.

23. HW recommends that the Applicant provide species-specific planting details, including supporting calculations and visual references, to demonstrate that the proposed installation spacing is appropriate for each species and that the planting areas are adequately sized to accommodate the specified spacing. Coordination with the proposed landscape plans depicted on Sheets L-101 and L-102 will be necessary to complete this evaluation and to ensure that all areas subject to invasive species management are appropriately seeded and planted with native species.

    March 6, 2026: The Applicant responded that the graphics utilized in the ISMP are to scale and therefore representative of the appropriate planting space. HW completed a cursory review of the updated landscape plan, which appears to have distinguished between the ISMP planting zones and the proposed landscape plantings. Additionally,

language specifying what seed mix will be applied to the invasive species management zones has been added to Section 7.0 of the ISMP. No further action is requested.

The proposed development plans indicate that erosion control blankets will be applied to steep slopes. However, it is unclear what these blankets will consist of and whether they will be applied within the proposed mitigation areas. Biodegradable erosion and sediment controls are preferable to minimize the potential for microplastic pollution (e.g., created by straw wattle plastic netting breaking down during prolonged construction periods or during removal), particularly for the purposes of slope stabilization, as plastic netting applications can create hazards for wildlife.

24. If erosion control blankets are to be applied to the mitigation areas, HW recommends that the associated detail on page C-802 be updated to specify that erosion control blankets must consist of 100% biodegradable material (UV/Photodegradable or Oxo-(bio)degradable plastics are not considered biodegradable).

    March 6, 2026: The Applicant has updated the plans as suggested. No further action is requested.

Section 8.0 outlines the proposed management timing, identifying a single coordinated treatment window between late summer and early fall. While this timeframe is generally effective for herbicide application, particularly for woody invasive species that are actively translocating resources to their root systems, additional treatment methods applied at other times of year may enhance overall management effectiveness.

It is also advisable to identify the fruiting period for each target species and, to the extent practicable, schedule treatments and/or removals outside of those periods to reduce the risk of seed dispersal and further spread of invasive species.

25. HW recommends that the Applicant include species specific appropriately timed management methods and specify the fruiting/seed dispersal periods for each species to confirm that activities can be coordinated appropriately.

    March 6, 2026: The Applicant has updated Section 8.0 of the ISMP to include that additional precautions be taken if the fruiting/seed dispersal periods cannot be avoided. HW emphasizes the importance of additional precautionary measures suggested under Comment 22 if fruiting/seed dispersal periods cannot be avoided, and defers to the Commission on whether they feel it necessary to require any additional initial treatments to cut back vegetation prior to fruiting/seed dispersal periods, as appropriate.

The Applicant has specified that the ISMP will be implemented with oversight from a “qualified wetland scientist”. Additionally, the Applicant specifies that the qualified wetland scientist will perform the post-construction monitoring.

26. HW recommends that the Applicant submit the resume and/or demonstrated qualifications of the selected wetland scientist for the Commission’s review and approval.

March 6, 2026: The Applicant has attached the resume as suggested. No further action is requested.

The monitoring plan is described in Section 9.0, which includes one annual visit by a qualified wetland scientist until a Certificate of Compliance is issued. Given the rapid growth and spread potential of invasive plant species, monitoring only once per year is unlikely to be sufficient to evaluate treatment effectiveness and identify re-establishment in a timely manner. If monitoring is conducted more than once annually, the number and timing of written reports would also need to be adjusted accordingly, including reconsideration of the proposed November 15 reporting deadline.

27. HW recommends that the Commission require the approved qualified wetland scientist to monitor the site at least twice per year during the first two years following initiation of treatment. If invasive species are demonstrably well controlled after this initial period, the monitoring frequency may then be reevaluated and potentially reduced or ceased.

    March 6, 2026: The Applicant has revised Section 9.0 to indicate that "two monitoring site visits shall be conducted each year…" as suggested. However, one reference to annual monitoring remains just before this statement. HW finds that this update is otherwise appropriate and recommends that the Commission includes a **Special Condition** in any OOC it may issue to this effect, and defers to the Commission regarding their preference on receiving the associated reports bi-annually or annually in accordance with the ISMP's proposed deadline of November 15.

## Conclusion

The Applicant is advised that the provision of these comments does not relieve him/her of the responsibility to comply with all Town of Andover Codes and By-Laws, Commonwealth of Massachusetts laws, and federal regulations as applicable to this project. Please contact Janet Bernardo at 508-833-6600 or at jbernardo@horsleywitten.com if you have any questions regarding these comments.

Sincerely,

HORSLEY WITTEN GROUP, INC.

Janet Carter Bernardo, PE
Principal

Jamie McCarthy, PWS, CWS, CESSWI
Environmental Scientist

cc: Andover Planning Board