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Ben Sale, Chair
Annapolis Planning Commission
c/o Dept. of Planning and Zoning
145 Gorman St.
Annapolis, MD 21401

February 3, 2022

Dear Mr. Sale,

Please accept the enclosed written technical comments and testimony for Project No. PD2019-001, The Village at Providence Point proposed planned development. Crab Creek Conservancy is a 501(c)(3) charitable organization dedicated to protecting the water quality, habitats, and ecological integrity of the Crab Creek Watershed in Annapolis. We have over 1,600 supporters and followers across our different platforms.

I. The project is incompatible for the site and the surrounding character of the landscape and neighborhood.

A. Ecological significance of the site.

Crystal Spring Forest, aka Crystal Spring Farm, aka the “Katherine Property” is located in the heart of the headwaters of Crab Creek. Subsequently no other environmental organization has as much potentially at stake as Crab Creek Conservancy, and this project will have a direct impact on our ability to carry out our mission. The extensive Priority Forest there along with the mosaic of diverse habitat types, including old fields, vernal pools, and wet meadows, make it ecologically unique and subsequently critical to the integrity of the Crab Creek watershed. Prior to annexation, the site had been included as a cornerstone of the Anne Arundel County Greenways Master Plan.¹ Some 221 bird species have been documented on the site, ranking it among the top 10 most diverse bird sites in the county.² The extraordinary natural values of the site geographically situated on the increasingly developed Annapolis Neck Peninsula make it unsuitable for large-scale development such as that proposed by the applicants. But the proposed Village at Providence Point (TVPP) if built, would be located smack dab in the middle of the Priority Forest and wildlife habitat that make up these headwaters. The planned development that would be constructed at this site is incompatible with the character of the surrounding

¹ Anne Arundel County Department of Recreation and Parks. 2002. Anne Arundel County Greenways Master Plan, adopted October 15, 2002. P. 35

² eBird. 2022. eBird: An online database of bird distribution and abundance [web application]. eBird, Cornell Lab of Ornithology, Ithaca, New York. Available: <https://ebird.org/hotspot/L189600>. (Accessed: February 2, 2022).

neighborhood and landscape, per the city's own Forest Conservation Act Ordinance at Subsection 21.24.090 paragraph (A).³

B. The scale of the project is inappropriate for the site, uses the wrong baseline data, and requires extensive public review.

The argument that this proposal has been scaled down to a minimal size and that something much worse would be permitted if this application is not approved is not tenable, and we need only look at historical precedent as example. The city has repeatedly rejected no fewer than 3 iterations of this project under this name and the previous name, the Village at Crystal Spring, since 2012. The applicants have been very clever in rebranding this as a new development, but make no mistake, this is just a different version of the same project with some reshuffling of investors. Instead of using those early proposals as our baseline, however, we ask that you use a frame of reference that is more reality-based—the large, in-tact, 99 acres of forest that is currently the largest carbon reservoir and open space in the city limits. Why would the city permit a 36-acre development in the middle of this undisturbed tract of land? This again gets at the compatibility of the proposed project with the surrounding area, neighborhood, and landscape, per the FCA Ordinance.⁴ The baseline for this project should be the current reality state of no development and the in-tact mosaic of habitats that currently exist there. The site is currently in open space, and the sheer scale of the proposal is too large and incompatible for such an ecologically significant area.

The public hearing process has been poorly advertised. The first Planning Commission hearing was posted at the corner of Spa Road and Forest Drive, as required by the city code.⁵ However, no update to that sign has been made—as of February 1st, it still reflects an old hearing date for the first Planning Commission hearing of December 16th (see Exhibit 3 in Appendix C). The January 6th and January 20th hearings subsequently took place with little knowledge to the public. Anyone driving by the site would be under the impression that there was only one hearing, and that hearing had already occurred. At a minimum, additional hearings with new signs must be scheduled, and a project of this size justifies additional outreach, particularly in the low-income and public housing communities that are adjacent to the site. This additional engagement is a fundamental principle of environmental justice.

The applicants have presented their proposal as if the outcome of the project is already a given and does not acknowledge the existence of multiple serious and significant impacts. However, Crab Creek Conservancy would like to point out for the public record that many impacts of the project have not even been discussed or presented during the Planning Commission hearings. Enclosed are descriptions of many of these impacts with data and analysis to support their bases. In this context, it is important to remember that the applicants' submission is simply a proposed plan, and an imperfect one at that. The ongoing stormwater debacle at Parkside Preserve serves as an example of what can happen to even the best laid plans.⁶ An ounce of prevention is worth

³ Annapolis City Code § 21.24.090(A)

⁴ *Ibid.*

⁵ Annapolis City Code § 21.71.045(B)(1)

⁶ DuBose, Brooks. 2021. Annapolis gives Parkside Preserve contractor Friday deadline to address environmental issues near Quiet Waters Park. Capital Gazette, October 5, 2021.

100 pounds of enforcement, and if the City cannot enforce stormwater compliance now, how could it be trusted to do so on a development that has three times the footprint? This calls into question the City's capacity and process for permitting and enforcing compliance by such a massive project in such an environmentally sensitive area today in 2022, an era when climate change is accelerating and large, in-tact blocks of forest are increasingly rare.

II. Much of the information and testimony provided by the applicants is based on faulty or misleading claims and incomplete or erroneous data.

1. Project size - the applicants have proposed a complex with 350 units, 302 of which are independent living units. They complain that denial of a tree variance in 21-71-170 would create an "undue hardship" and that the "site can't be used without a tree variance." This again gets at the sheer size and scale of the project. What is our baseline? There is nothing preventing the applicants from submitting a proposal that is 1/10th the size of this proposal to avoid all disturbance to the existing stands of Priority Forest. According to the National Center for Assisted Living (NCAL), the average size of assisted living facilities in the U.S. today is 33 licensed beds, out of some 28,900 facilities.⁷ In Maryland, the average is 19.⁸ Taking this information into account, this puts the development into a whole new perspective.

A. The applicants' stormwater management plan (SWMP) has several deficiencies and is also based on obsolete assumptions and data.

The applicants testified that their stormwater management plan is allegedly designed to handle 125% of the runoff capacity required by the city. But this is based on data from the last century. For example, the 25-year, 24-hour rainfall event figure of 6.27 inches cited by Mr. Gerald Winegrad on December 16 is derived from the NOAA Precipitation Frequency Atlas, which is based on data no more recent than the year 2000.⁹ Annapolis is already seeing increased frequency and magnitude of flood events—the downtown area flooded twice in 2021 alone, and this is only projected to become worse. Water tables are rising, and saltwater is incurring into our groundwater. In this context, we must ask, what is the baseline we should use? If we use data through 2021, then 125% might really only be 90% of the current 25-year event. And that forces the question, what will it be in 10 years or 20 years?

The SWMP does not take the construction phase into account. Construction is the riskiest phase for water quality from siltation, sedimentation, and conductivity. We are now seeing extensive siltation of waterways occurring at Parkside preserve, largely the direct result of clearing 12 acres of Priority Forest at that site, as City Council representative Rob Savidge has emphasized.¹⁰ The footprint of VPP will be three times larger and will remove more than twice the amount of Priority Forest. The additional road clearing footprint from Skippers Lane construction will have

⁷ NCAL. 2022. Facts and Figures.

⁸ NCAL. 2022. Maryland Fast Facts. National Center for Assisted Living fact sheet.

⁹ National Oceanographic and Atmospheric Administration. 2006. NOAA Atlas 14: Precipitation-Frequency Atlas of the United States. Volume 2, Version 3.0.

¹⁰ Savidge, Rob. 2016. Information on the Parkside Preserve Development Project. Blog post from Robsavidge.wordpress.com

additional indirect impacts. Combined with the heavy equipment placement and movement over the entire area, the total area of impacts will likely exceed the design footprint of the project itself, leading to soil disturbance, erosion, compaction, and soil carbon loss through oxidation.

B. The buffer strips of trees along Forest Drive and the other roads are not viable stands of forest

The buffer strips of trees along Forest Drive and the other roads are not viable stands of forest relative to the large, contiguous block of forest that is there now. The claim was made back on December 16th that these stands would be viable and would see no increased mortality when asked by the Commission. This claim disregards the widely accepted and well-studied effects of forest fragmentation, such as increased heat, lower humidity, soil degradation, and biological invasion, the effects of which can reach 500-1,000 feet into the forest.¹¹ The proximity of the roads will also be an additional stressor on these remaining trees. The buffer strips will be only a couple hundred feet wide at most. This would also be taking place in a changing climate, with extreme heat and drought events becoming more commonplace as time goes on.

C. Impacts to species of Greatest Conservation Need (GCN) and other sensitive species are disregarded.

The applicants have failed to submit, and the City has failed to consider, any information regarding impacts to species of Greatest Conservation Need (GCN).¹² The applicants' Forest Stand Delineation FSD report refers repeatedly to "generalist wildlife." But if you dig further into the applicants' document submissions, they admit that their consultants only performed a one-day wildlife usage survey—in March.¹³ This is at a time when many GCN species either have not arrived or are not active. For example, in March GCN bird species that are neotropical migrants haven't even begun their several thousand mile journey from Central and South America. The Cornell Lab of Ornithology has data documenting some 54 GCN bird species on site - that is nearly 40% of all the GCN birds the DNR lists statewide (see Exhibit 1 in Appendix A). Several of these are neotropical migrants such as Acadian Flycatcher (*Empidonax virescens*), Scarlet Tanager (*Piranga olivacea*), American Redstart (*Setophaga ruticilla*), Wood Thrush (*Hylocichla mustelina*), and Ovenbird (*Seiurus aurocapilla*), that have all been confirmed to breed at the site within the last five years. In addition, the Maryland DNR's letter to Wetlands Studies and Solutions, dated June 15, 2021, states that the site contains Forest Interior Dwelling Bird habitat. Building a 34-acre development in the middle of this habitat will have long-term consequences for these species and many others on the Annapolis Neck Peninsula.

Furthermore, no herpetological inventory has been conducted. Reptiles and amphibians are valuable indicators of environmental health, and they are often some of the most sensitive

¹¹ Hurd, Jason, Mary Tyrell, and Brett Butler. 2006. Forest Fragmentation in Connecticut: What Do We Know and Where are We Headed?

¹² Maryland Department of Natural Resources, 2015. Maryland State Wildlife Action Plan. Chapter 3 Maryland's Wildlife Species of Greatest Conservation Need.

¹³ VPP Revision Responses to Comments 4-30-2020

species to habitat loss and environmental change.^{14,15} The Maryland DNR lists 45 reptiles and amphibians that are GCN in Maryland.¹⁶ At least three of these, Eastern Box Turtle (*Terrapene carolina*), Eastern Kingsnake (*Lampropeltis getula*), and Eastern Mud Salamander (*Pseudotriton montanus*), were documented in the area during the most recent Maryland herpetological atlas project.¹⁷ Crab Creek Conservancy has credible evidence based on the habitat that these species as well as Wood Turtle are likely on site, and we are very concerned about impacts to these reptiles and amphibians and the 19 other species documented during the herp atlas (see Exhibit 2 in Appendix B). Without adequate, scientifically sound surveys on the property, there can be no confidence in claims that there will be no impacts to reptiles and amphibians on site. The lack of data and over generalization by the applicants call into serious question the scientific validity and completeness of the information submitted and claims that they have made.

D. The tops of the buildings will be visible from Forest Drive and adjacent roads.

During the December 16th Planning Commission hearing, there was discussion about the visibility of the buildings from Forest Drive beyond the remaining buffer strip of trees. No information was given supporting the claim that the buildings would not be visible from the road. Crab Creek Conservancy would like to correct the record that these buildings will in fact be visible from the road, at a minimum during the 5-month leaf-off season but likely at all times throughout the year. An analysis of the line of sight using the distance and angle from the travel lanes of Forest Drive to the top of the tallest buildings based on the height of the trees, the width of the forest buffers (200 feet), and the height of the tallest 5-story buildings indicates these buildings will clearly be visible through and over top of the remaining trees, especially as forest fragmentation leads to further tree mortality. Remember, the applicants' presentation has indicated the tallest buildings will be over 75 feet tall, tall enough to be viewed above all but the most mature of the remaining trees in the buffer strip. And keeping in mind again, that during the leaf-off season, the crowns of these trees are all much more transparent, and you'll be able to see much of the buildings directly through the remaining narrow buffer strip.

III. The City must consider all of the impacts of the Village at Providence Point proposed development.

A. Significant impacts from the use of landscaping chemicals will result from the project footprint.

When landscapes are developed, one of the most egregious impacts is water pollution from landscaping chemicals such as fertilizers, herbicides and/or pesticides. Nutrient and chemical runoff are one of the top pollutants in the Chesapeake Bay, with 300 million pounds of Nitrogen

¹⁴ Center for Biological Diversity. 2022.

¹⁵ Ballinger, Royce E. and Justin D. Congdon. 1996. Status of the Bunch Grass Lizard, *Sceloporus scalaris*, in the Chiricahua Mountains of Southeastern Arizona. Bulletin of the Maryland Herpetological Society. Vol. 32 No. 2 June 1996.

¹⁶ Maryland Department of Natural Resources. 2015. Maryland State Wildlife Action Plan. Chapter 3 Maryland's Wildlife Species of Greatest Conservation Need.

¹⁷ Maryland Department of Natural Resources. 2014. MARA Database. Maryland Amphibian and Reptile Atlas 2010-2014. Natural History Society of Maryland.

alone entering the Bay each year.¹⁸ Fertilizer and other landscaping chemicals are one of the leading sources of these pollutants, and the applicants have indicated during their testimony that they may use chemicals in the form of fertilizers or pesticides on the Village at Providence Point development. At the January 20th hearing, Mr. Hyatt speculated that he did not think that “Agent Orange” is going to be used on the forest mitigation sites. This attempt at sarcasm was in poor taste and demonstrates low respect for and understanding of the harmful impacts by the applicants’ legal representative of many regulated chemical substances. Regardless of what is used on the forest mitigation sites, however, Crab Creek Conservancy’s primary concern is the fertilizer and other harmful chemicals that would be used in landscaping on the project footprint itself. The amount of data and information the applicants have submitted on these major pollutants for the Chesapeake Bay is zero. While they have diverted attention to focus on the stream channel restoration, the pollution runoff from landscaping chemicals at VPP would drain directly into Crab Creek and the South River.

B. The city of Annapolis must consider the direct climate change impacts of the project as well as how climate change influences other impacts.

Climate change is the most existential threat of our time. Annapolis has tried to create a green image in adopting a sustainability plan that aims to reach carbon neutrality by 2050.¹⁹ While the city takes certain actions on climate to reach this goal, it is not addressing the projected loss of the largest carbon reservoir within its city limits and the largest unprotected one on the Peninsula that is Crystal Spring Forest. Based on average carbon storage figures for 80-year oak forests in our region from the U.S. Forest Service, the removal of the 27 acres of Priority Forest alone, not including the other 7 acres of project footprint and other indirect impacts, would release more than 2,000-2,500 tons of carbon into the atmosphere.²⁰ To our knowledge, no detailed accounting of the carbon emissions and climate impacts has been provided. If this project is permitted, the city will effectively be making the decision to allow these emissions to occur. What would the plan be to mitigate these emissions? How long would the proposed forest mitigation take to eventually absorb that carbon, if ever? Has this even been assessed? And how will the mitigation replace the soil carbon that will be lost and all of the biota that go with it? Combined with the aforementioned effects of forest fragmentation, the city will potentially be creating a perfect storm of conditions for a negative feedback loop, resulting in even more climate and environmental impacts as time goes by.

¹⁸ Chesapeake Bay Foundation - Nitrogen and Phosphorus

¹⁹ Annapolis Department of Neighborhood and Environmental Programs. 2010. Annapolis Community Action Plan.

²⁰ Smith, James E., Linda S. Heath, Kenneth E. Skog, and Richard A. Birdsey. 2006. Methods for Calculating Forest Ecosystem and Harvested Carbon with Standard Estimates for Forest Types of the United States. United States Department of Agriculture Forest Service, Northeastern Research Station. General Technical Report NE-343, p. 54

C. The proposed forest mitigation falls short of modern best practices and current science and fails to address climate change.

1. The proposed forest mitigation does not address climate change.

The forest mitigation that is proposed falls far short of what is considered industry best practice for forest restoration and the restoration of ecological functions, especially in a changing climate. Crab Creek Conservancy commented on this issue extensively in our public comments submitted for the preliminary Forest Conservation Plan (FCP). The applicants have only proposed two years of monitoring and maintenance of the young tree plantings in their preliminary FCP, despite claims to the contrary made by Mr. Hyatt during the January 20th Commission hearing. This was presented during the November 10th virtual public meeting broadcast on the Annapolis City YouTube Channel.²¹ Crab Creek Conservancy would like to correct the public record that thus far, no specific proposal has been put forth to meet the legal requirement in the City's FCA ordinance, which requires five years.²² In addition, the scientifically sound best practice today in 2022 is at least 10 years to ensure adequate growth, establishment, and recruitment.²³ In addition, there is no plan to address climate change, both in terms of how much carbon these plantings are expected to absorb, and in terms of what measures would be taken to ameliorate the effects of increased heat, drought, and flooding over the coming years to ensure adequate tree survival and replacement. The reality is, no amount of reforestation on site will likely absorb the amount of carbon emissions into the atmosphere that will result from this project.

2. Wildlife habitat impacts are disregarded in the FCP

No consideration has been given to what will happen to the old field and wet meadow grasslands that contribute such biodiversity to this area. If these habitats become tree plantations, these grasslands will be lost, along with the species that depend on them, such as American Woodcock (*Scolopax minor*), Wild Turkey (*Melagris gallopavo*), Eastern Bluebird (*Sialia sialis*), and others.

3. Forest mitigation credit should not be allowed for street trees, as these do not provide the same ecological function or carbon storage as in-tact forest.

The current science on this is clear: street trees do not provide anywhere near the ecological function of in-tact Priority Forest, yet the applicants have proposed 3.5 acres of street trees as acceptable mitigation for Priority Forest loss at Crystal Spring Forest. Crab Creek Conservancy commented on this extensively in our technical comments on the preliminary Forest Conservation Plan (FCP) in which we detail the science and provide several references

²¹ City of Annapolis. 2021. Virtual Public Meeting on the Village at Providence Point preliminary Forest Conservation Plan.

²² Annapolis City Code. § 21.71.070(B)(2)(x)

²³ Vallauri D., Aronson J., Dudley N., Vallejo R. (2005) Monitoring and Evaluating Forest Restoration Success. In: Forest Restoration in Landscapes. Springer, New York, NY. https://doi.org/10.1007/0-387-29112-1_21

explaining why this is just unacceptable in modern practice. See eTrakit document VPP Public Comments on Prelim FCP Mtg.pdf.²⁴

D. There has been no environmental justice review or assessment for this project, which could yield disproportionate impacts on low income communities and/or communities of color.

Environmental Justice refers to the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.²⁵ This includes significant permitting actions. Crab Creek Conservancy is concerned about the ecological health of the Crab Creek watershed for all of its residents. There has been no environmental justice analysis performed for this project on the potential impacts to adjacent low income and public housing communities and whether these impacts would be disproportionate on those communities. The Planning Commission therefore must request such an environmental justice assessment be completed and submitted before any permitting decision is made.

E. The cumulative impacts from the proposed development along with other proposed development must be taken into consideration as part of this permitting action.

Cumulative impacts in this case refers to the combined, incremental effects of multiple regulatory or permitting actions such as PD2019-001. This is highly applicable to all of the environmental impacts, including chemical runoff, stormwater, climate change, habitat loss as well as traffic.

1. Claims that traffic will not increase are not tenable based on the applicants' own numbers. Cumulative impacts from traffic must be considered for this project in conjunction with all other current and future proposed development.

The applicants allege that traffic will not worsen with this development, if built. But let's take a look first at their own numbers: according to the applicants' own live testimony from January 6th and January 20th Planning Commission hearings, at least 340 vehicles would be kept on site from independent living. In addition, some 75 to 80 employees plus vendors, care providers, and visitors will be traveling to the site each day. We can make all of the optimistic assumptions we want to about ridership, public transit use, daily trips, and anticipated travel days. However, one thing is clear in the age of COVID-19—people like their cars and are relying on them for transportation more than ever, because they help them feel safer. Public transit use is way down, and projections are not optimistic for recovery any time soon.²⁶ Taking this into consideration with all of the other proposed development in the city, the Department of Planning and Zoning lists 543 units that are proposed within city limits as of the department's November 2021

²⁴ Annapolis Dept. of Planning and Zoning. 2022. eTrakit document [VPP Public Comments on Prelim FCP Mtg.pdf](#)

²⁵ U.S. EPA. 2022. Learn About Environmental Justice.

²⁶ Ramos, Elliott and Aadit Tambe. 2021. The pandemic sank mass transit use. Data show its slow recovery. NBC News online. [July 22, 2021](#).

update.²⁷ Incidentally, TVPP is listed as “0 units”, probably because of the loophole that doesn’t count these units as housing. This also does not take into account the 58 units at the Willows at Forest Drive that are planned adjacent to Crystal Spring. When the public says that traffic will increase, that is because the data and trends indicate increasing traffic. Any statement to the contrary is a denial of the facts and an attempt to greenwash the truth. Even if Skippers Lane could alleviate any of the traffic congestion on Forest Drive, it is but a small segment of road that would have no benefit to traffic elsewhere in the Forest Drive corridor. This example serves as a very illustrative one for why the city cannot make this permitting decision in isolation of these and other considerations.

In closing, the Commission has before it a very important decision. As officials responsible for taking into consideration all of the relevant information, Crab Creek Conservancy urges you to take seriously these concerns and issues that we and others have raised. These issues are based in sound science and analysis as well as fundamental observation. The applicants only want you to see what they want you to consider, and they have inundated you with fancy diagrams and plans as a distraction from some of the very real impacts this project will have. As a result, you have a moral and intellectual responsibility to consider all of the facts on these issues, not just the selective ones presented by the applicants. This decision will have irreversible consequences for the community and the natural systems on which we depend.

Sincerely,

Ross Geredien
On behalf of Crab Creek Conservancy, Inc.

²⁷ Dept of Planning and Zoning. 2021. November 2021 Update.

Appendix A

Exhibit 1: Bird Species of Greatest Conservation Need

Common Name	Scientific Name	Temporal Use Status
Acadian Flycatcher ^a	<i>Empidonax virescens</i>	breeding/stopover/migration
American Bittern	<i>Botaurus lentiginosus</i>	stopover/migration
Alder Flycatcher	<i>Empidonax alnorum</i>	stopover/migration
American Kestrel	<i>Falco sparverius</i>	wintering/stopover/migration
American Redstart ^a	<i>Setophaga ruticilla</i>	breeding/stopover/migration
American Woodcock	<i>Scolopax minor</i>	wintering/stopover
Bald Eagle	<i>Haliaeetus leucocephalus</i>	wintering/stopover/migration
Bank Swallow	<i>Riparia</i>	migration
Bicknell's Thrush	<i>Catharus bicknelli</i>	stopover/migration
Black-and-White Warbler ^a	<i>Mniotilta varia</i>	breeding/stopover/migration
Blackburnian Warbler	<i>Setophaga fusca</i>	stopover/migration
Black-throated Blue Warbler	<i>Setophaga caerulescens</i>	stopover/migration
Black-throated Green Warbler	<i>Setophaga virens</i>	stopover/migration
Blue-winged Warbler		stopover/migration
Bobolink	<i>Dolichonyx oryzivorus</i>	stopover/migration
Broad-winged Hawk	<i>Buteo platypterus</i>	breeding/stopover/migration
Brown Creeper	<i>Certhia americana</i>	wintering/stopover/migration
Canada Warbler	<i>Cardellina canadensis</i>	stopover/migration
Chimney Swift	<i>Chaetura pelagica</i>	breeding/migration
Common Nighthawk	<i>Chordeiles minor</i>	stopover/migration
Eastern Meadowlark	<i>Sturnella magna</i>	stopover/migration
Dark-eyed Junco	<i>Junco hyemalis</i>	wintering/stopover/migration
Golden-crowned Kinglet	<i>Regulus satrapa</i>	wintering/stopover/migration
Grasshopper Sparrow		formerly breeding/migration/stopover/wintering
Great Blue Heron	<i>Ardea herodias</i>	breeding/stopover/migration
Great Egret	<i>Ardea alba</i>	stopover/migration/post-breeding dispersal
Greater Yellowlegs	<i>Tringa melanoleuca</i>	stopover/migration
Hooded Warbler	<i>Setophaga citrina</i>	stopover/migration/former breeding
Kentucky Warbler	<i>Geothlypis formosa</i>	stopover/migration
Least Flycatcher	<i>Empidonax minimus</i>	stopover/migration
Least Sandpiper	<i>Calidris minutilla</i>	migrations/stopover
Lesser Yellowlegs	<i>Tringa flavipes</i>	stopover/migration
Louisiana Waterthrush	<i>Parkesia motacilla</i>	stopover/migration/post-breeding dispersal
Northern Waterthrush	<i>Parkesia noveboracensis</i>	stopover/migration
Magnolia Warbler	<i>Setophaga magnolia</i>	stopover/migration
Nashville Warbler	<i>Leiothlypis ruficapilla</i>	stopover/migration

Common Name	Scientific Name	Temporal Use Status
Northern Harrier	<i>Circus hudsonius</i>	stopover/migration
Northern Parula ^a	<i>Setophaga americana</i>	stopover/migration
Ovenbird ^a	<i>Seiurus aurocapilla</i>	breeding/stopover/migration/post-breeding dispersal
Pine Siskin	<i>Spinus pinus</i>	stopover/wintering/migration
Prairie Warbler	<i>Setophaga discolor</i>	stopover/migration
Red-breasted Nuthatch	<i>Sitta canadensis</i>	wintering/stopover/migration
Red-headed Woodpecker ^b	<i>Melanerpes erythrocephalus</i>	post-breeding dispersal/wintering
Rusty Blackbird	<i>Euphagus carolinus</i>	migration/stopover
Savannah Sparrow	<i>Passerculus sandwichensis</i>	migration/stopover
Scarlet Tanager ^a	<i>Piranga olivacea</i>	breeding/migration/stopover/post-breeding dispersal
Sharp-shinned Hawk	<i>Accipiter striatus</i>	migration/stopover/wintering
Swainson's Thrush	<i>Catharus ustulatus</i>	migration/stopover
Veery	<i>Catharus fuscescens</i>	migration/stopover/post-breeding dispersal
Willow Flycatcher	<i>Empidonax traillii</i>	migration/stopover
Winter Wren	<i>Troglodytes hiemalis</i>	migration/stopover/wintering
Wood Thrush ^a	<i>Hylocichla mustelina</i>	breeding/migration/stopover/post-breeding dispersal
Yellow-bellied Sapsucker	<i>Sphyrapicus varius</i>	wintering/migration/stopover
Yellow-breasted Chat ^a	<i>Icteria virens</i>	breeding/post-breeding dispersal/migration/stopover

^a Known breeding species on site

^b Observed within project footprint 1/15/22 (Young et al. 2022)

Sources:

Sullivan, B.L., C.L. Wood, M.J. Iliff, R.E. Bonney, D. Fink, and S. Kelling. 2009. eBird: a citizen-based bird observation network in the biological sciences. *Biological Conservation* 142: 2282-2292.
Maryland Department of Natural Resources. 2015. Maryland State Wildlife Action Plan. Chapter 3 Maryland's Wildlife Species of Greatest Conservation Need.

Appendix B**Exhibit 2: List of Reptiles and Amphibians Documented at or near
Crystal Spring Forest During the 20210-2014 Maryland Herpetological
Atlas Project**

Common Name	Scientific Name	GCN Status
American Bullfrog	<i>Lithobates catesbeiana</i>	No
American Toad	<i>Anaxyrus americanus</i>	No
Common Five-lined Skink	<i>Plestiodon fasciatus</i>	No
Common Gartersnake	<i>Thamnophis sirtalis</i>	No
Common Watersnake	<i>Nerodia sipedon</i>	No
Cope's Gray Treefrog	<i>Hyla chrysoscelis</i>	No
Dekay's Brownsnake	<i>Storeria dekayi</i>	No
Eastern Box Turtle	<i>Terrapene carolina</i>	Yes
Eastern Kingsnake	<i>Lampropeltis getula</i>	Yes
Eastern Ratsnake	<i>Pantherophis alleghaniensis</i>	No
Eastern Red-backed Salamander	<i>Plethodon cinereus</i>	No
Eastern Spadefoot	<i>Scaphiopus holbrookii</i>	No
Green Frog	<i>Lithobates clamitans</i>	No
Green Treefrog	<i>Hyla cinerea</i>	No
Mud Salamander	<i>Pseudotriton montanus</i>	Yes
Northern Dusky Salamander	<i>Desmognathus fuscus</i>	No
Northern Red-bellied Cooter	<i>Pseudemys rubriventris</i>	No
Painted Turtle	<i>Chryseis picta</i>	No
Pickerel Frog	<i>Lithobates palustris</i>	No
Red-eared Slider	<i>Trachemys scripta elegans</i>	No
Snapping Turtle	<i>Chelydra serpentina</i>	No
Spring Peeper	<i>Pseudacris crucifer</i>	No

Appendix C Exhibit 3: Sign showing only the December 16th Hearing Date.



