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Date: September 6, 2023

To: Mr. Alan Rappleyea, Multnomah County Hearings Officer

From: Bruce Prenguber, M.S., Agricultural Economist

Subject: Bull Run Filtration Facility and Pipelines Project – Response for Second Open Record Period

This memorandum responds to a selection of Multnomah County land use review public comments received as of the date of this response that address accepted farm practices in the Surrounding Lands. Among other analyses, Globalwise previously provided three key reports: “Compatibility of Proposed Portland Water Bureau Filtration Facility & Pipeline Operations with Surrounding Agriculture,” dated September, 2022, which was included in the land use record as staff’s Exhibit A.33 (referred to herein as the “Operations Report”), and “Compatibility of Proposed Portland Water Bureau Filtration Facility & Pipelines Construction with Farm Traffic,” dated June 2023, which was included in the land use record as Attachment 5 to the Applicant’s Pre-Hearing Statement, at staff’s Exhibit H.3 (referred to herein as the “Farm Traffic Report”), and the Memorandum responding to public comments dated August 5, 2023, at staff’s Exhibit I.80 (referred to herein as the “Farm Use Response in Open Record Period 1.”) This memorandum builds on all of the previous reports, uses defined terms referenced in those reports, and addresses public comments received during the first open record period.

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Responses to Abutting Farm Operator Testimony

This section is organized by farm and includes specific testimony in italics along with the detailed responses. This section addresses abutting farm uses to the filtration facility site and pipelines. The next section addresses non-abutting farm uses.

I.11 Written Testimony from James Ekstrom, Shelley L. Ekstrom, LLC (Farm Operator D)

Mr. Ekstrom claims that a major amount of his field will be taken out of production with pipeline construction and cites the estimated number of plants associated with that area. He claims it will have an effect on his current farm practices.

Comment – *“The amount of land that will be disturbed and taken out of production for many years will be approximately 10-12% of our farm. This is our most productive farm, so it will greatly impact and change the nature and ability to use our current farm practices. This is not a small portion of our production. 35,000+ of high value plants will be removed from production per year. It may be a small amount for an entity like PWB, but not for a small community farm like ours. New farm roads will have to be made to provide for spray and dust buffers taking even more farmland out of production. Farmland is becoming increasingly harder to find in our area. Please keep up the mission of the Planning Commission and protect our precious farmland.”*

Response – Mr. Ekstrom repeats previous comments claiming up to 12 percent of his “farm” is going to be out of production for a long time. My calculation is a net loss of 1.8 - 1.9 acres in this field, or a percentage loss of about 5 percent of the total field area. See page 41 of Exhibit I.80 (Farm Use Response in Open Record Period 1).

Mr. Ekstrom’s calculation is in error for these reasons: 1) he is not counting the land area that is in the temporary and permanent easements areas which will have extensive soil restoration and will be back in crop use after construction, and 2) he is calculating the percent of loss that he refers to the “farm” which is just one tax parcel of this field. The tax parcel is part of a larger, contiguous farm production unit. Regarding his farm, the total farmland in the Ekstrom and Schmidt Nursery is over 200 acres. At 200 acres, the permanent loss of crop land is less than one percent.

Despite the fact that the land in the pipeline area itself is not part of the “Surrounding Lands” for the impact test for land use, the Water Bureau has made extensive efforts to minimize the acreage removed from crop production once the pipeline is in place, including by placing the pipeline under a farm road and by soil restoration of crop production areas. The Water Bureau is allowing Mr. Ekstrom to grow plants over the pipeline easement area – even through it is not part of the “Surrounding Lands” – with the only requirement being they must be harvested before establishing deep roots that may extend to reach the pipe.

Mr. Ekstrom claims that soil compaction and soil mixing will be an issue.

Comment – *“Soil compaction and soil mixing are always a problem after digging a ditch of any size. This is a mega ditch measuring 2400’ long by 30+ feet wide by 10-25’ deep. Dr. Mengel stated that there will be little impact on soil productivity due to modern construction methods. This*

is just plain false. Here are 3 very recent publications that have very different data and findings from study's done around the world." [And subsequent text]

Response – Dr. Mengel has responded to these comments in his separate memorandum also submitted during this second open record period.

Mr. Ekstrom claims the offer for payment in compensation for the loss of his plants is extremely low.

Comment – *“PWB states that Ekstrom & Schmidt Nursery, LLC will be compensated for crop loss due to the interruption in growing and selling nursery crops. The offer that PWB sent us was an insult it was so small and will in no way compensate us for the loss of these plants. It wouldn't even cover the cost of 1 year's crop input value. This land will be lost to productive farming for a minimum of 10 years of crop losses if not more.”*

Response – The Water Bureau will fairly compensate Mr. Ekstrom for the loss of trees and loss of land due to the pipeline. If Mr. Ekstrom disputes the compensation offered, the condemnation process in front of a court will provide a venue for a judge to decide what a fair compensation will be. The land in the pipeline area itself is not part of the “Surrounding Lands” for the impact test for land use. Nor is a loss of income an increase in costs for the impact test for land use.

Nevertheless, as I have stated in a previous response, the Water Bureau will restore agricultural land and any farm improvements that are damaged or disturbed following the best science and soil restoration practices as described in the agricultural soil restoration plan prepared by Dr. Denny Mengel. See Exhibit A.33, page 122 (Operations Report) and pages 42-43 of Exhibit I.80 (Farm Use Response in Open Record Period 1).

Mr. Ekstrom is concerned about access to his main farm road from Dodge Park Boulevard during pipeline construction.

Comment – *“Ekstrom & Schmidt Nursery, LLC has a main farm road that connects Lusted Rd. to Dodge Park Blvd. If either road is closed, this will cause a big problem. If we cannot use this road, then we will have no way to get large equipment to and from our farm. There is no way to turn around with our large truck and trailer. It will also pose a problem when we haul plants out of that particular field for shipping and increase round trip times if we need to use alternative routes.”*

Response – Multnomah County will not limit Mr. Ekstrom's farm use of the Dodge Park Boulevard access he has to his main farm road. Only the Water Bureau is restricted from its use under the proposed condition of approval from County Transportation.

Nor will the Water Bureau's pipeline construction prevent Mr. Ekstrom from accessing that road from Lusted Road or Dodge Park Boulevard. As explained in the “Response to Farm Traffic” and elsewhere in Exhibit I.80 (Farm Use Response in Open Record Period 1), farm traffic will be flagged through otherwise closed work zones as needed. Additionally, any impact to either of those entry points will be relatively brief relative to the overall construction, as farm vehicles can route to locations in front of a pipeline construction zone or behind it while the pipeline construction zone inherently moves -- approximately 30 to 50 feet per day for trenched construction and after

completion of a section of trenchless construction. Finally, as explained in Exhibit I.75, page 5, the construction specifications require the contractor to “**maintain 24-hour access to all businesses and residences adjacent to the areas of work for the project and along haul routes, do not block driveways or sidewalks, and maintain safe pedestrian accesses.**”

I.51 Written Testimony from Shawn Nerison, Surface Nursery (Farm Operator F)

Surface Nursery states that the Water Bureau Project interferes with their farm traffic movement and is a significant change in accepted farm practice.

Comment – *“Movement of crews and equipment between fields and farm locations is an important and accepted farming practice, and any activity that causes an interference with that practice qualifies as causing a significant change. Blocked access to our farm fields at any time and for any length of time is simply not acceptable and violates approval criteria of MCC 39.7515(C)(1) and (2).”*

Comment – *“Construction to and closures of Dodge Park that affect the portion west of Cottrell Rd completely blocks us from our field F9.[¹] Globalwise concludes, regarding an alternate farm traffic route, that there is “None due to safety issues, the route of travel is only on Dodge Park.” This is a clear violation of MCC 39.7515 C(1) and (2), as being prevented from accessing an entire field is a significant change to our farming practice and will result in monumental costs associated with lost revenue.”*

Comment – *“Outbound truck traffic is irrelevant to daily farm traffic use of roads, except that outbound trucks can only be loaded with product when that product can be brought, as needed and on demand via necessary roads, to the loading area. Globalwise perhaps includes this mention of outbound farm traffic to frame the summary in a more favorable terms, because in the summary section for this road segment use, they then list “Road segment not used” under the alternative outbound shipping traffic route heading (see p. 18 of the report). It is misleading that they discuss our ‘farm traffic’ origins, destination, and routes in the analysis section, and acknowledge that there is NO alternate route of travel to reach the destination of field F9, yet in the summary make it appear that no alternate is needed because the road segment is ‘not used.’”*

Comment – *“Outbound shipping traffic routes and volume by months should not be intermingled with normal farm operations that rely on daily and consistent year-round farm traffic mobility. The two concepts are related only in that outbound shipments rely on clear and unencumbered farm mobility to ensure timely loading of perishable product, crew availability, and that healthy product that is ready for shipping.*

This road segment analysis of our operation is one example of how this Globalwise report subjectively and arbitrarily concludes that the PWB’s project will not cause significant changes in accepted farming practices, when in fact it fails to meet the approval criteria of MCC 39.7515(c)(1). It is clear from the report that PWB’s planned construction of this magnitude,

¹ Reference is to the Globalwise Appendix A to the report, “Compatibility of Proposed PWB Filtration Facility & Pipelines Construction with Farm Traffic” in the H.3 Exhibit.

far beyond normal road maintenance and repair, prevents us from accessing our field and absolutely causes a massive change to our system-wide operation by not being able to move product, crews and equipment to various fields and work sites. Restrictions on our farm operations, including mobility of equipment and crews throughout our farm network and the extended, cooperative farm network in the area, and any changes, delays and closures of our outbound shipping and farm traffic routes unequivocally creates a significant change to accepted farm practices on our land which is devoted to farm use.

Furthermore, these impacts, including all proposed and foreseeable mitigation measures, will cause a significant increase in the cost of such accepted farm practices, a violation of approval criteria MCC 39.7515(c)(2). As per the Globalwise report, approval and construction of this project will mean that there will be periods of time when we have no access to our field labeled F-9, making it impossible for us to continue our normal farm practices in those fields. The blocking of the F9 field is one example of how this report fails to accurately represent our farm traffic movement throughout our network where PWB cannot mitigate the impacts of their construction. With no safe, alternate route, we will lose access to our F-9 fields for multiple days at a time for months, which will prevent us from performing normal, daily farm practices as described in written testimony already on record, and will result in loss of product which equals loss of revenue. There are no mitigation measures which could resolve this, and even if the intersection could allow for some local access, significant delays in reaching our fields and work locations drive up our labor costs and reduce our productivity and profits. This example is representative of the problematic nature of a construction plan of this magnitude, and the subjective nature of this report which attempts to dismiss the scale and scope of negative impacts to our farm and the broader farming community.”

Response – The Water Bureau has concrete plans to assist farmers with continued access to fields during the Project construction. It is not the intent of the Water Bureau to have activity that “causes any interference” with Surface Nursery’s farm vehicle movement on shared public roads, and, moreover, “any interference” is not the standard for approval of the Project. Regarding “blocked” fields, I reiterate what was stated in previous rebuttal comments: if pipeline construction is blocking a field access point that Surface Nursery or any other farmer needs to reach, and cannot reach by other reasonable means, the pipeline contractors will accommodate that farmer’s access through otherwise closed work zones. The Farm Traffic Report is part of a much larger body of work Globalwise performed to inform the Water Bureau and its contractors about farm traffic in the area precisely so that, where “the route of travel is only on Dodge Park,” the contractor is prepared to ensure that access is not impeded for any material periods of time.

Globalwise conducted a thorough assessment of farm travel by Surface Nursery and other farmers. This included addressing outbound product shipping, another important and accepted farm practice. Therefore, the appendix covered both farm vehicle traffic and outbound shipping. Each is addressed separately in the appendix. This coverage was intended to be comprehensive, not to mislead as stated in the comments.

Regarding Dodge Park Boulevard, the pipeline construction east of Cottrell Road is not a closure. It is always one-lane passage with a flagger control and this constraint has been put in place specifically to allow Surface Nursery to have reasonable access to field F9, as well as one other

farmer with a field in Lower Lusted Flats² that wants to use Dodge Park Boulevard as their route down to their field. Furthermore, all Dodge Park Boulevard pipeline construction will be completed in 14 months; the duration is far less than 5 to 7 years as might be inferred from Surface Nursery comments about the magnitude of construction.

For the above reasons, it is clearly erroneous to conclude that Surface Nursery will have no access to field F-9 for “multiple days at a time for months.”

It should also be pointed out that another farmer in this area, which is larger than Surface Nursery with its headquarters near Surface Nursery and has a field in Lower Lusted Flats, has not objected to the Water Bureau Project. Furthermore, this farmer told Globalwise that they use Lusted Road, not Dodge Park Boulevard, to access their Lusted Flats field. Therefore, there is an alternate route on Lusted Rod for Surface Nursery to use if they do not desire to use Dodge Park Boulevard because of construction or for any other reason.

Surface Nursery states that Globalwise has mistakenly included July and August as low traffic volume months.

Comment – “Globalwise, in the same report, also claims that our “lowest traffic volume months for road segment use” are September and October, followed by July and August. However, this statement misrepresents our accepted farm practices.”

Response – Globalwise concluded that Surface Nursery’s lowest traffic months are September and October because of a direct statement by Mr. Nerison in our face-to-face and telephone discussions. See footnote 4 of the Operations Report, on page 33. Much of the description of bareroot nursery accepted farm practices came from Mr. Nerison as well as other bareroot nursery farmers I interviewed. The description of those accepted farm practices is on pages 33 – 35 of the Operations Report. From the extensive discussions with nursery operators in this area, which is reflected in my work describing in detail the accepted farm practices and their timing throughout the year, I determined that July and August would be months of higher traffic than September and October, and that October would be the lowest month of the year overall. The study to catalog and describe the accepted farm practices in the Surrounding Lands spanned two years and particularly focused on nursery production. Each section on accepted farm practices in the Operations Report includes a table detailing the timing of those practices during the year.

It should also be pointed out that neither Mr. Nerison nor other farmers have indicated any disagreement with the accepted farm practices I detailed in the Operations Report.

² “Lusted Flats” is a local term used to describe the area between the Sandy River and the steep slopes that are directly to the east of the filtration facility site and extend north and south along a ridge line there.

Surface Nursery states that I am not a farm expert and the proposed mitigation strategies are not workable or worse.

Comment – “The interviewer and author of the report, Mr. Pengruber is not a farmer, and, according to his resume, he has never farmed nor had to make a living at farming. We don’t dispute his degrees, but we do suggest that actual farmers are the experts and they are the only experts qualified to make alterations to their accepted farming practices. The mitigation strategies offered in this report and others on record for the applicant might appear fine on paper to a non-farmer, but they are, in practice, either illogical at best or in some cases impossible and even hazardous. For example, Globalwise claims, in the section titled “Finished Water Pipeline Segment: Dodge Park Boulevard from Cottrell Road Intersection to Farm Access Road,” that our farm road in the field labeled F1 is a route we ‘can’ use to access our fields labeled F6, F7, and F8. However, dirt and even gravel roads within nursery fields are designed for 4x4 tractor use in dry weather, and not structurally designed for repeated use as an alternate to a paved road. This is certainly not a route that we would ever consider for normal, daily farm traffic to travel from our headquarters/main site to outlying fields. Farm roads are not used in inclement weather because it would create hazardous conditions for our employees and damage our equipment from unstable road surfaces and mud, ice, etc.

Farm roads are not built to be utilized as a primary route for anything other tractors within the fields. Crew buses, foreman vehicles, and service providers are expected to travel to and from fields on regular roads so as not to damage the farm road from excessive use and cause damage from dust (which is the host for mite infestations) to trees and plants in the field. We want to emphasize that farm roads are not designed to handle regular farm traffic and heavy vehicles on a regular, repeated basis, and non-Surface personnel should never be using our interior farm roads for any reason. Use of this F1 farm road as a regular route of travel would cause significant damage to the road itself and possibly our vehicles and equipment, which creates additional operational difficulties for our farm. There are seasonal times this road is impassable and not an option for any of our vehicles, so it is unreasonable to count on it as a viable route. This suggestion that we currently use this road in F1 to connect any of our fields is erroneous. If this is intended to be a suggested alternate route to justify the simultaneous closure of local roads or intersections, it is not practical and does not address the challenges posed by the extensive construction periods, and is another example of the confusing and misleading claims in this report.”

Response – Mr. Nerison questions that I am a farm expert because I have not earned my living as a farmer. I was raised on a farm. My background includes two degrees in agricultural economics but more significantly I have 48 years of experience working with farmers and others in agriculture. As stated in my previous response, I also now have 3 years of direct experience discussing and analyzing accepted farm practices with nurseries in the Surrounding Lands and with others such as agronomists, soil scientists, farm supply companies, and government farm inspectors. I also have been retained as an expert witness for court cases to address agricultural damages. My experience as well as my education qualifies me as an expert to assess the impacts of the Water Bureau Project on accepted farm practices in the Surrounding Lands.

The comments that Surface would not use its own farm road to reach Dodge Park Boulevard are puzzling for many reasons. First, in my direct discussions with Mr. Nerison, he described that route as an option for his farm vehicle travel without making any reservations about what vehicles would use that road. Second, aerial imagery confirms that there is a commonly used access point to Dodge Park Boulevard from this farm road. I also know that Mr. Ekstrom uses one access to Dodge Park

from their property to the east so, this is a common way to access Dodge Park. Third, and most significantly, Mr. Nerison is contradicting himself. Mr. Nerison explained four or more times to me how he preferred having an access route going along the perimeter of the proposed filtration facility site to reach his dirt covered farm road in the middle of his south field, and thereby also reaching other fields farther south and east of Bluff Road. This was his preference over using public roads. This discussion included tractor movement in winter months. Mr. Nerison also described this need in a meeting on December 9, 2022, attended by Water Bureau staff, facility contractors, and me. However now, somehow, it is not appropriate for Surface Nursery to use their own farm road for travel by these same farm vehicles.

To the extent that Mr. Nerison's statements are contradictory to his previous statements and to those of other nursery operators in the area, they appear to be created for his oppositional purpose and do not accurately reflect his accepted farm practices as previously relayed to me and others by Mr. Nerison.

Nevertheless, even if Mr. Nerison needs to use Dodge Park Boulevard to access fields F6, F7, and F8, rather than his previously expressed preference for using the farm roads, that will be possible because Dodge Park Boulevard will not be closed. During the pipeline construction, which will move along the road area as construction progresses, Dodge Park Boulevard will be flagger-controlled with one lane of passage sufficient for farm equipment passage.

Surface Nursery states that one of their fields has been omitted in the analysis by Globalwise.

Comment – "... this report also fails to include a leased field that is part of our normal, daily farming operation. The field is shown on the map labeled "Figure 4: Farm Operations – Southeast Quadrant" but it is not labeled nor included in the analysis of our operation. It lies between F6 and F8, and is a property that we currently, and can only, access from within F6. The report does acknowledge that access to F8 is preferably gained through the interior field of F6, but that that is actually an error also. F8 can only be access from Proctor Rd via Bluff Rd. This 'forgotten' field – we'll call it F10 – can only by accessed from within F6. To enter F6, we cross our own interior farm road and enter the field. Crew busses can park on the farm road in F6 alongside the field F10, and equipment drives across the farm road and into the field. There is no other appropriate access to this leased field. The owner's driveway, on Proctor Rd, is paved and our heavy equipment, especially our tracked equipment, cannot be driven on it without destroying the surface. Instead, our agreement with the owner, and our accepted farming practice, is to enter from within our own F6 field. However, when PWB seizes our land in F6 to build their 'emergency access road' where our farm road is currently located, we will lose access to field F10 completely. Our equipment will not be able to safely cross the elevated gravel road constructed to handle emergency response vehicles and Hazmat response traffic. Farm roads are built to create the least amount of compaction and disturbance possible, as famers understand the value in the all the soil and in all farmable land. The emergency access road will be constructed to meet specific requirements identified in the application, which will inevitably create a raised road surface with steep sides as much as 20" or more. This is hazardous for our heavy equipment to cross, and we will be unable to park our crew busses on this road, causing our employees to have to walk through across the new road to reach F10. Even if our tracked equipment could safely maneuver the change in grade of the road, it would destroy the road edges and surfaces with gouges and tracks, and the mud that would be naturally tracked through it would be nearly impossible, and extremely costly to us, to clean up after each access. This field must be able to be accessed by crews and equipment on demand, as

and when needed, according to conditions, operational needs, planting and maintenance schedules, and growth cycles. The construction of an emergency access road, on our land obtained through claiming of eminent domain of important land dedicated to farming, absolutely creates a significant change in our accepted farming practices because not only are we losing valuable farm land and revenue from the trees we grow on it, but we have to build a second road (next to the one we already have the PWB wants to seize for its own use). Having to halt normal operations to build a new farm road, pull out trees that are not ready to be taken out of the ground, and create additional compacted soil conditions in our fields are all examples of significant changes and costs to our farming practices. If this project is allowed to continue, it will also cause significant costs to our operation in road maintenance of the emergency access road that will no doubt be required anywhere we have to use or cross it. This is a clear violation of approval criteria MCC 39.7515 (C)(1) and (2)."

Response – The listing of fields by codes refers to the Appendix in the Farm Traffic Report. Although the Water Bureau submitted digital copies of this document, the version in the record at H.3, Attachment 5 is of low quality because staff chose to use a scanned copy of a paper version provided at the hearing. An identical digital copy is being submitted with this memorandum in order to respond to this comment.

The omitted field, which Mr. Nerison referred to as F10, is immediately north of field F8. It is accessed by crossing the current farm road at the eastern edge of Surface Nursery field F6 as pointed out by Mr. Nerison. Not including it in the analysis is not a factor that changes any conclusions in the Farm Traffic Report. For all purposes, field F10 is an extension of field F8, so the conclusions regarding field F8 apply to F10 as well.

The Water Bureau will allow Surface Nursery to use the portions of the emergency access road located on Surface Nursery property for accepted farm practices just as they have used the farm road in that location in the past, including for tracked vehicles and to temporarily park its farm vehicles on the road while working in their fields. Additionally, the Water Bureau will allow Surface Nursery to cross a portion of the emergency access road located on the neighboring (Burkholder) property as long as Surface Nursery is farming the property to the east and has permission from the underlying landowner to cross the emergency access road area to access that property.

Regarding the elevated gradient for the proposed gravel emergency access road, the Water Bureau will ensure that the design does not include a difference in elevation that would prevent Surface Nursery from safely using the portion of the road on Surface Nursery property or crossing the road safely to access property they are farming to the east. This is included in the design specifications.

Regarding maintenance, the Water Bureau already regularly maintains its gravel roads on other properties in the region where Water Bureau facilities are located. The Water Bureau will additionally maintain the emergency access road, including to repair any damage caused by tracked vehicles or other Surface Nursery use, in order to keep the road up to standards required for fire and emergency access. This certainly will be an additional cost for the Water Bureau, but one that will prevent Surface Nursery from having to take land to build a new farm road or pull out trees for that farm road. Instead, Surface Nursery will have the benefit of an upgraded road that it does not have to take on the time or cost to maintain.

Construction of the emergency access road will take approximately 9 to 15 weeks, or about 60-100 days. However, the entire road won't be blocked the entire time the road is under construction.

The majority of the road will not be under construction (and could be used by Surface Nursery) – only the portion under construction will be blocked. The Water Bureau will ensure that, at all times, at least one of the east-west Surface Nursery farm road connections to the emergency access road is fully open for Surface Nursery to use. This will allow Surface Nursery to gain access to the eastern most portions of Surface Nursery’s property even when the emergency access road construction closes portions of the adjacent road (the farm road being upgraded for the emergency access road). That access will therefore be possible by traveling along the north-south farm road in the middle of their fields, turning onto one of the east-west farm roads, and then onto the portion of the emergency access road that is not closed for construction.

Even for the portion under construction, a small number of vehicles could pass through the area under construction. For a particularly heavy day of farm traffic needs, the Water Bureau could provide flaggers at each end of the construction zone that could allow farm traffic to pass safely. For the short time periods where sections of the road are blocked for construction, but access can be coordinated as needed, Surface Nursery will not need to temporarily operate a farm road to the west of the temporary construction easement area. If for some reason Surface Nursery determines that a road to the west is necessary for some portion of the road, the Water Bureau will provide services to restore the small area impacted by soil compaction (pursuant to the Soil Remediation Plan in the record). Although not considered for the land use test to reduce impacts below the level of significance, the Water Bureau will also pay for any loss of net income from tree removal.

Surface Nursery asserts that there will be changes of accepted farm practices with significant cost increases: “halt normal operations to build a new farm road, pull out trees that are not ready to be taken out of the ground, and create additional compacted soil conditions.” These actions are all effects of the condemnation of the easement, which is not at issue in this proceeding because it is the subject property – not the Surrounding Lands. The condemnation is, in effect, as if Surface sold a strip of their land, and adjusted their remaining land accordingly. The only difference is that the sale of the easement is by eminent domain rather than on the open market. The impact on the remainder parcel is taken into consideration in the condemnation proceedings. Stated another way, these impacts are not changes in farm practices or the costs of those practices. After the emergency access road is built, Surface Nursery will continue to farm all remaining land in the fields F6, F8, and F10 as they did before the emergency access road – including use of the emergency access road where on their property – with the same accepted farm practices and no increased cost of those practices.

Globalwise has calculated a total of 0.6 acre in the permanent easement area will be out of crop production or about 0.5 percent of the total acreage in field F6 alone. Restoration is not possible because it is land where the permanent emergency road itself will be located and a minimal buffer around that road surface. Because such a small percentage of land will be taken out of permanent production there is no reason to expect any change in accepted farm practices by Surface Nursery. Moreover, this area is not part of the Surrounding Lands, it is part of the subject property.

Furthermore, it will not increase the cost of accepted farm practices for several reasons. First Surface nursery has many other fields in nursery production in this area in addition to this small percentage loss of cropland area within this farm unit. Second, the land the Water Bureau is taking for permanent road use is entirely along the outer perimeter of the field which requires no change in crop row alignment, irrigation equipment layout, harvest planning, or any other accepted farm

practice. This is the preferred area of field F6 Mr. Nerison asked the Water Bureau to use for the emergency access road in earlier discussions.

Surface Nursery states that having an average of 7 tractors on roads was described by me as subjective and this farm movement will be prevented from accessing their fields.

Comment – *“The first comment they reference, Comment 1, quotes our statement that “in summer, we have an average of 7 tractors per day on the roads in the area.” This statement is true, and it is not subjective. It is a general statement reflective of our typical daily farming practices. The massive amounts of road improvements, road construction, pipeline installation and facility site construction required by this project is expected to last seven years, during which time the hundreds of dump and haul trucks, construction vehicles, detours, delays and road closures will paralyze our farm operation and the entire farming community, forcing significant changes to not only our accepted farming practices because, as stated earlier, we will be prevented from accessing our fields. This will force a significant change to not just our accepted farming practices, but to the daily life of every resident in the area.*

In their response to Comment 1 Globalwise states that they have ‘extensively studied farm traffic vehicle routes on public roads in the area.’ However, they admit this was based on discussions with farmers (including myself), and “observing road use during 17 trips in the Surrounding Lands.” We contend that discussing farm traffic routes and observing 17 trips does not qualify as an ‘extensive study’ on which to base an entire analysis of an interconnected, working farm community. This is supported by the observation that this report makes incorrect statements about farm traffic ‘low volume use’ months and fails to present a complete picture of any one farm’s operation that includes its dependance on accessibility for vendors, suppliers, and employees, and how many farms, including ours, are interconnected with the larger farming community for cooperative outbound shipping, service providers, and especially timely delivery of supplies. This part of their response also has no clear relevance to the original “Comment 1.”

Response – Globalwise did not state that Surface Nursery’s average of 7 tractors on roads was a subjective comment. However, using terms like “paralyze our farm operation and the entire farm community” without solid analysis is subjective and does not constitute substantial evidence to which the applicant can respond.

Globalwise referred to an extensive study performed, which includes, but is not limited to, discussions and trips to the area by Globalwise. The extensive study also includes review of the Construction Traffic Impact Analysis, Exhibit A.230, by Global Transportation Engineering (“Construction TIA”) which assesses intersections and delay times, as well as many meetings with the author of that report to understand its implications. No significant delays were found when Transportation Demand Management (TDM) strategies are implemented. The pipeline construction constraints are also part of the extensive study and effort to minimize farm traffic delays and detours. Finally, Globalwise determined that farmers already use a number of accepted farm practices to increase their mobility and reach fields efficiently. These practices are well identified in the first open record responses by Globalwise and include accessing fields where there are no physical barriers, using early start times during seasons with long daylight, entering fields ahead of or behind any work zone for pipeline construction, and positioning equipment in fields for the next day’s work. Surface Nursery is downplaying the flexibility they use to move between their facilities and fields in the Surrounding Lands.

Surface Nursery states that they will need to take many alternate routes with the Water Bureau Project and this is a significant increase in the cost of their accepted farm practice for farm traffic on public roads.

Comment – “The next paragraph in their response to Comment 1 states that we, Surface Nursery, as well as other farms in the area told them that ‘with some exceptions’ we will take alternate routes when needed. The comment refers to ‘shared public road use’ as an accepted farm practice, but it is important to distinguish that shared public road use is not the same thing as being forced to change our farm traffic routes beyond the occasional detour or around an accident. Sustained road construction over months that forces us to take alternative routes and/or change our normal logistical practices is not part of our accepted farming practices, but rather a disruption to them and only done when absolutely necessary in a specific instance. This is not a common, accepted practice, because alternate routes create logistical disruptions resulting in increased operating costs to our operation. It happens very rarely, in fact probably less than once a year, that we experience delays and detours on local roads. As evidenced by the condition of our local roads, regular maintenance and road improvements are not a common occurrence.”

Response – Globalwise is relying on professional traffic engineer analysis and detailed assessment of routes farmers like Surface Nursery use for public road travel. It is factual that at times Surface Nursery, like other farms, already take detours to reach fields. For most farm traffic routes, during construction, if Surface chooses, they can enter a construction zone which may involve delay or they can take a detour. The added distance is expected to be less than two miles farther in nearly all cases and therefore it is a matter of a few additional minutes of travel time. These are accepted farm practices when farms like Surface Nursery have fields that require access via travel on public roads. With the emphasis the Water Bureau is giving to farm traffic movement, plus the results of the Construction TIA, along with the flexibility of travel that farms already use, the conclusion is that Surface Nursery will not have to change their accepted farm practices nor will they have significant increases in the cost of accepted farm practices.

Surface Nursery states that any delay in their accepted farm practices will cause a change in accepted farm practices and significantly increase costs of accepted farm practices.

Comment – “Globalwise’s response to Comment 1 also states that “pipeline construction constraints have been incorporated in the construction plans to accommodate farmers’ use of the roads.” However, in the next paragraph, Globalwise states, regarding the intersection of Cottrell Rd and Dodge Park Blvd, “the Water Bureau has added a pipeline construction constraint to allow multi-day closure of that intersection only during their low seasonal travel on the roads and that intersection.” This is problematic for a variety of reasons. First, Globalwise mistakenly claims that our low season is Sept – Oct followed by July – August. As stated earlier, these months are definitely not low traffic volume months, and it’s unclear where Globalwise came up with that conclusion. Another false assumption is that there is a significant change in our road usage or need to move between and access all our fields during September and October. These are characteristically dry months, and a busy time for performing various field operations at all our locations. We want to emphasize that any multi-day closure, regardless of the season, will cause significant delays and have a profound impact on our operations. We continuously work on upkeep and preparing our trees, and any delays can seriously hinder our ability to maintain the quality of trees we take pride in. Even a single day of being unable to access a field can have detrimental effects on our trees and overall farm operations. A multi-day closure of this intersection will prevent us from accessing

our fields labeled in the report as F6, F7, F8, F9, and F10 (the field left out of the report). The report acknowledges there is no alternate route. This forces an incredibly significant change to our accepted farming practice of accessing our fields to perform necessary work tasks, including but not limited to caring for live trees and tending to the soil. Please reference exhibit E.36 for a more complete list of typical daily farm operations throughout the year. Any prevention in our ability to complete these tasks as needed, at any time throughout the year, qualifies as a significant change to accepted farming practices, and that change is directly tied to an increase in the cost of those practices by way of labor expenses, decreased productivity due to time spent in road construction closures and lengthy detours, and loss of product from either the inability to reach our fields and provide necessary, time-sensitive care to our trees, or the loss of those trees altogether because we can't invest in and plant trees that we won't be able to access as needed. This violates approval criteria MCC 39.7515 (C)(1) and (2)."

Response – In a response above, I addressed why July and August were added as lower months for road travel. I also previously explained how Mr. Nerison has contradicted himself by stating Surface Nursery would not use their own farm road to reach Dodge Park Boulevard over many months of the year.

There has never been an assumption in my analysis of impacts that Surface Nursery has no farm traffic movement in those months. Rather, the Farm Traffic Report identifies October as a low point -- keeping critical road sections open for the balance of the year in order to have the greatest farm travel mitigation to support accepted farm practices.

Moving farm traffic through pipeline construction zones has been carefully reviewed by the Water Bureau. Surface Nursery downplays the significance of the 11 constraints for pipeline construction planning, but this mitigation reduces travel delays and the need for farmer detours. The following has been stated in previous responses, but it needs to be restated again: if Surface Nursery or any farmer has no alternative route and they need to reach a field in a pipeline work zone, they will be granted access and flagged through otherwise closed work zones. There are also practical ways this access can be accommodated by simple communication between the farmer and the pipeline construction supervisor. At no point will Surface or another farmer be "unable to access a field."

Surface Nursery states that use of flagger-controlled lane passage creates hazardous conditions for their employees travelling on the public roads and is not appropriate mitigation for farm equipment travel.

Comment – *"The proposed filtration and pipeline projects also create hazardous conditions to our employees and other drivers on our local roadways, a violation of approval criteria MCC 39.7515 (F). In the next paragraph, Globalwise states that 'a flagger will facilitate the passage of Surface Nursery farm traffic through the single lane of construction zone traffic.' This cannot be considered an appropriate mitigation of the impacts to our farm. Flagging farm traffic through sections of closed roads adds interference with regular traffic who are then stuck behind a wide, slow-moving tractor following a pilot vehicle. Given the nature of road construction, there is no feasible way that our tractors, crew buses and other farm equipment will be flagged through with little to no delay. A single-lane closure creates a hazardous condition for not only our employees but other drivers as well. First, it is common for regular traffic to go around and pass our slower-moving farm equipment. When we're on the road, our employees know to wave around traffic when it's safe for them to pass, and yield as much room as safely possible to the passing vehicle. When*

traffic is experiencing delays throughout the system of roads in our community, it is reasonable to assume there will be upset drivers who are in a hurry to make up lost time, and it is also reasonable to anticipate driver will try to pass our farm equipment even if it means compromising safety. A flagger will not be able to prevent a vehicle from passing a slow-moving tractor in the construction zone or shortly after, creating a hazardous condition for everyone on the road. Second, it is not reasonable to assume that flaggers will flag our farm through with little to no delay, as this would be prohibitive to the construction crews performing the work, and there is no way to separate farm traffic from non-farm traffic. This is another example of how the Water Bureau's mitigation plans to manage the construction impacts to our accepted farm practices are insufficient, ineffective, and highly improbable once construction is underway. In farming, just as in the construction world, time is money."

Response – It is erroneous to call a flagger-controlled road with one lane of passage a closed road. The traffic flow will be temporarily reduced but there is no closure. Once vehicles going in one direction move through the work zone, vehicles going in the other direction will be able to proceed through the work zone. In this way, traffic moves in both directions.

It is speculative and unfounded to argue that drivers of vehicles would pass farm vehicles unsafely while in work zones. There is only one lane, so there will be no passing. Proposing flaggers and a lane of passage is suitable mitigation to enhance the movement of farm traffic along with other vehicles on area roadways during the temporary construction period.

Surface Nursery states that use of an alternate travel route is a significant change to their accepted farm practices and creates hazardous conditions for their employees who travel in farm vehicles.

Comment – *"The response to Comment 1 goes on to state that "for other travel routes taken by Surface Nursery, they may choose to send farm vehicles on a detour route." We would like to state that detour routes are never by choice, as it is a significant change to our accepted farming practices to re-route crews, product, and equipment. Globalwise states that for vehicles going to our fields along Bluff Road, the alternative route from our headquarters is to west on Lusted, south on Altman Rd then east on Carpenter Lane. They then suggest that if a delay is in the segment of Lusted Rd, that "slow moving farm vehicles can take a farm road south to Dodge Park Blvd and then go west to Altman Rd to reach that field." This is another example of how inaccurately this report portrays our farm operation and logistics, because not only is the farm road not an acceptable or viable route as stated earlier, but the route from headquarters to Altman then west down the entire length of Carpenter Lane is not a feasible route. Not only would this route add substantial travel time and distance, increasing our labor and fuel costs, but Carpenter Lane between Altman and Cottrell is not appropriate for heavy, daily farm traffic use. There is no striping and no shoulder on this road. The middle section of this road segment has numerous residences and is narrow with thick trees, limited visibility and numerous hidden driveways. Carpenter Lane is small local rural street with extensive and unrepaired pot holes and side erosion. In many places the road is not wide enough to accommodate safe passing of slow-moving farm traffic, and there are limited places tractors with wide implements can pull off for oncoming traffic to get by. The only nursery traffic that uses Carpenter Lane is to access their own fields on that road and they do not typically travel the entire length of the road. It is reasonable to assume that section of Carpenter Lane, as suggested by Globalwise as our alternate, will also be the alternate route for any closures on Dodge Park, and delays as well. Drivers are not going to wait for a flagger to get through a single-lane closure on Dodge Park when every map app will suggest Carpenter Lane as an*

alternative route, just like Globalwise has. Adding detoured farm traffic in addition to detoured commuter and project-related traffic to this small rural road with no shoulder, no striping and no centerline, numerous hidden driveways will create a hazardous to condition to our employees and to local residential activity like people jogging, walking dogs, riding horses and bikes and kids playing. The massive amount of road construction that is part of this project will create hazardous conditions like this on all small rural neighborhood roads being suggested and used as alternative routes, and is a violation of approval criteria MCC 39.7515 (F)."

Response – Regardless of whether detours on public roads are desired, they are used and are an accepted farm practice. Detours by farmers are part of the existing conditions in the Surrounding Lands since this area has a mix of farms, residences, schools, and other businesses. The Water Bureau has incorporated effective and significant constraints (conditions) for pipeline construction to accommodate farm traffic. Those same constraints will be applied to all road work, including the “fix-it-first” repair of degraded area roadways. The Water Bureau has also planned to keep pipeline construction out of EFU land to protect farmland. If detours are not effective, and the work zone blocks the field access with no reasonable alternative, then the Water Bureau’s contractors will accommodate farm vehicle movement through otherwise closed work zones.

The section of Carpenter Lane between Altman Road and Cottrell Road is currently used by three farmers to reach farm use properties. For example, Mr. Ekstrom (Farm Operator D in the Appendix to the Farm Traffic Report) accesses field D-F4 by going east on Carpenter Lane from Altman Road (see Figure 2 of the Appendix). Farm Operator N takes Carpenter Lane from either Altman Road or from Cottrell Road to reach their field N-F2. Farm Operator M uses Carpenter Lane to reach their fields M-F1 and M-F2. Also Farm Operator M has a loading dock at field M-F2 and semi-trucks must arrive from the east on Carpenter Lane. This is evidence that farm vehicles of the same type as Surface Nursery are currently travelling on this segment of Carpenter Lane. Given the positive safety record of Surface Nursery Mr. Nerison has indicated, there should be no added hazards to kids, dog walkers, bike riders, horse riders, vehicles leaving their driveways, or others.

Surface Nursery states that communicating construction schedules with pipeline personnel is ineffective and not an accepted farm practice.

Comment – *“Finally, in the final paragraph of the response to Comment 1, Globalwise suggests that “frequent sharing of construction schedules by on-site pipeline construction supervisors” serves as appropriate mitigation of the impacts from construction. Globalwise states that we will designate someone from Surface to be the primary contact for this, and that we can also request updates anytime. They claim this two-way communication is a “valuable accommodation to will further reduce and/or eliminate farm vehicle delays through construction work zones.” There is no value in this proposed mitigation measure – only more cost! Surface should not be required nor expected to make available a designated person for this alleged two-way contact. Having to get information about daily changes to road availability and construction closures and detours is a very significant change to our accepted farming practices. Farmers don’t coordinate their daily activities with outside agencies, and the expectation to do so is the opposite of a non-impact. We need to be able to make timely decisions based on operational needs, weather and a variety of other farm-related factors, and not be forced to check in with or wait for daily updates from a construction supervisor. The proposed road construction, pipeline installation and site construction are projected to last years (PWB has requested a construction period of 7 years with annual extensions as needed), and adding this two-way communication measure only further forces a significant change to our*

accepted farming practices, as this is not something farmers have to allow for in their ongoing farming operations. To do so would require adding a full-time employee to handle the extra workload of coordinating farm logistical operations with a construction supervisor, which causes an increase to the cost of our accepted farming practices. This is another violation of approval criteria MCC 39.7515 (C)(1) and (2)."

Response – Surface Nursery purports that if they were to establish two-way communication with construction supervisors it would be daily and would cause them to add a full-time person to their staff. This is a significant exaggeration. First, there is no expectation that this would be needed daily nor year-round. Second, the Water Bureau will be entering road conditions information to Oregon Trip Check system so farmers can easily monitor and adjust to road conditions using commonly available mapping apps without contacting a pipeline construction supervisor. See the [Response to Traffic Impacts for Farm Travel](#) in the Globalwise Response to Public Comments dated August 5, 2023 Exhibit I.80. That is, farmers in the area may – but will not be forced to – communicate with a construction supervisor if desired.

Because Surface Nursery already checks current and forecasted weather conditions, and also checks road conditions periodically on the internet or via apps, this will not force a change in accepted farm practices or the cost of those practices.

Surface Nursery states that they do not choose alternate routes and that faster moving farm vehicles should only need to use regular routes.

Comment – *"Globalwise's response to Comment 2 states that our crews and personnel using crew buses and farm pickups "reach fields with little delay time if they choose to take an alternate route." We again want to offer a correct statement that alternate routes are never casual or personnel choices. Our accepted farming practices involve utilizing regular routes that are proven to be best practice in both safety and efficiency, and any deviation from these routes are not part of our normal operating procedure. Also, any detour or deviation from our standard routes do add travel time, fuel costs, additional mileage and employee labor expense. Time is money, and any delay, especially ongoing, roaming delays throughout the area where we farm, costs us both."*

Response – As described by Surface Nursery, they operate on a network of roads, both farm roads and public roads. Routes are not "fixed" as various destinations are reached and the order of travel to fields is not locked in one set pattern. Under these conditions a great deal of flexibility already exists for selecting routes the faster-moving vehicles take to reach the many different fields of Surface Nursery. It is reasonable and within the scope of accepted farm practices for Surface Nursery to travel what might be called alternate or detour routes to reach fields. Additionally, the question is not whether "any delay" is caused by the Project, but whether delay will force a significant change in accepted farm practices or the cost of those practices. The relatively minimal delay during the temporary construction period does not rise to the level of significance.

Surface Nursery states construction of the south entrance road would require a huge amount of construction vehicles and therefore cause hazardous air emissions even though the road will only be used in the event of an emergency.

Comment – “Globalwise’s response to Comment 3 dismisses our concerns for the health and safety of our employees working in our fields in close proximity to construction traffic and activities. We have, along with other area farmers such as R&H Nursery, explained in earlier statements why their dust mitigation measures are illogical with a project of this scale and magnitude. Clackamas County has denied use of the emergency access road as a secondary construction entrance, but even the construction of the road itself will involve hundreds of diesel truck trips back and forth in close proximity to our workers. Although they claim emission standards will be followed, it is reasonable to deduce that the amount of diesel engines operating near our employees for prolonged amounts of time will have an adverse effect on their health and well-being, which is a hazardous condition and violation of MCC 39.7515 (F) In addition, the construction of the emergency access road takes valuable land out of farm production, including the land that PWB is trying to seize through eminent domain for the sole purpose of this proposed facility, and the land where we will have to remove more trees so we can build a new interior farm road. Limitation placed on our field mobility across the emergency access road are discussed earlier, and indeed force a significant change to our accepted farming practices in the limiting of field access and force an increase in costs in the loss of land, trees, and the construction of a new farm road suitable for our farm equipment to utilize.”

Response – Surface Nursery is significantly exaggerating their claim that construction of the emergency access road will “involve hundreds of diesel truck trips back and forth in close proximity to our workers. Although they claim emission standards will be followed, it is reasonable to deduce that the amount of diesel engines operating near our employees for prolonged amounts of time will have an adverse effect on their health and well-being ...” First, this road length is only one-half mile with a gravel surface that will take only approximately 9 to 15 weeks, or about 60-100 days to build. There will be about 5 days of approximately 25 trips per day but for balance of the construction period there will be on average one single truck per day. Second, as previously explained, construction vehicles are regulated for air emissions. The main construction is more than 10 feet from where farm workers will be in the Surface field to the west. Surface Nursery workers now work within 10 feet of farm roads that have vehicle traffic passing them. Construction activity will be performed by licensed contractors whose drivers and other workers receive safety training that is updated regularly. Construction activity will not subject Surface Nursery employees to greater safety hazards than they currently have with normal farm work.

Furthermore, once construction of the road is completed, the emergency access road will be essentially unused, except for monitoring of its condition, unless an emergency occurs at the filtration facility or blocks the Carpenter Lane access.

Surface Nursery states that Globalwise has falsely represented the Surface Nursery farm practices of pesticide spraying near Bluff Road.

Comment – “Another false statement misrepresenting our farming practices in Globalwise’s response to Comment 4. The comment states “employees apply pesticides to trees as close as 10 feet to construction road.” Their reply includes a statement that “currently Surface Nursery applies pesticides within 10 feet of roads which include Bluff Road, Lusted Road and other roads.” This statement is completely false and presents an inaccurate view of our farming practices. We do not spray pesticides within 10 feet of any roads at any of our fields. Our standard practice is to spray at a minimum distance of 34 feet from the road, following all label instructions and ensuring a safe and appropriate buffer according to the label. In the case of Bluff Road that distance is 37’

minimum, and Lusted Road is a 41' minimum. Globalwise took our statement of concern in 'Comment 1' and made an uninformed generalization to our practices, when the comment was intended to show our concern over the emergency access road being so close to where trees are planted and spraying takes place. Their response acknowledges that pesticide application is an accepted farm practice but arbitrarily claims nothing they are doing will force a change or cost to that program. They are not acknowledging other factors that force changes and costs to our accepted farming practices, such as the inference to our practice related to pesticide application. However, the road that the PWB wants to use for the facility emergency access road will have to be built up to accommodate heavy emergency and hazmat vehicles. During this improvement and construction period, their workers will be within 10' of where we currently farm. If we need to spray in that area, there is a time during and after application known as 'no entry' period where no one should be in the exposed area. The reason we raised concerns about the construction road being so close to our fields is precisely because of our careful and responsible spraying practices. Having construction activities in such close proximity to our trees poses significant risks to unprotected construction workers as well as the integrity of our crops, and will lead to contamination from dust (which hosts mites) and other negative effects on the health of our plants. Mite infestations from dust create the need to apply additional pesticides which require additional materials, supplies, fuel and equipment costs as well as labor and task scheduling. The dust mitigation strategies suggested by PWB are not logical nor effective for a project of this scale. With these things considered, it is unreasonable to claim that the construction improvements to our existing farm road, and the presence of an emergency access road through our field won't force a significant change in and cost to our accepted farming practices and at the same time won't affect the health of construction workers within feet of pesticide being applied, especially if it is used for construction traffic as they have applied for. We will either have to arrange with PWB to shut down their construction and block all access to the emergency access road for up to a 72-hour re-entry period following spray application, or relocate our trees a significant distance from the road they are taking, allowing for a much farther setback than the 10 feet currently allocated in their proposal. The first option forces a significant change in our practices by being forced to not just inform but also coordinate this with PWB's construction plans. Spray application can't always be scheduled – often it is determined day of due to weather conditions, logistics, and operational needs. The second option forces another significant cost to our accepted farming practices in even more valuable farm land having to be taken out of production to accommodate the filtration project. We reserve the right to detail these costs and have it entered into the record for consideration in approval criteria MCC 39.7515(C)(1) and (2) once Clackamas County has reached a determination on final approval of the emergency access road and its allowed uses. This decision by Clackamas County absolutely has a bearing on the approval conditions of the entire project in Multnomah County. Although the project borders the county line and this particular road sits on the Clackamas County side, the project cannot move forward without an emergency access road, and it should be reviewed as part of the overall project and subject to the same test of criteria, regardless of county."

Response – Regarding pesticide applications, I rely on the expert testimony of Dr. Alan Felsot, Entomologist and Extension Specialist at Washington State University, who has studied the farm chemicals and practices related to those chemicals used by Surface Nursery and other farmers in the Surrounding Lands. Rather than "arbitrarily claim[ing]" that there are no impacts on spraying practices, Dr. Felsot's 70-page report (staff's Exhibit A.39) evaluates in detail "the common chemicals and application practices utilized by area farmers and the requirements for the use of the identified pesticides."

Concurrently with this memorandum, Dr. Felsof has provided additional responses to these comments related to spray practices – please refer to that document.

Regarding dust issues and other air particulates, this was raised by Mr. Nerison in previous comments and has been addressed. See pages 5-7, Dust Impacts Response in Exhibit I.80 and pages 18-22 of Exhibit I.80.

As I have stated previously, the Water Bureau has worked diligently to reduce the need for converting farmland from crop use to non-farm use associated with the Project. Regarding the loss of farmland at the filtration facility site, see Loss of Agricultural Land on pages 11-12 of Exhibit I.80. Regarding the effort to limit the loss of farmland for the emergency access road in Clackamas County, I discussed this previously in my response above.

Surface Nursery states that delays will be inevitable and costly. Especially during the digging season which is from November through Mid-March.

***Comment** – “Regarding Comments 5 and 6, we find Globalwise’s response subjectively dismissive of the legitimate construction-related impacts to our farming practices. Construction activities inevitably cause delays, and even minor delays during our digging, planting, and shipping seasons have significant repercussions for our farm operations. We specialize in bare root ornamental trees, which are delicate, perishable, live young trees. Time is money and dealing with living, perishable product does not allow for delays or schedule disruptions. Our ability to move trees promptly during the digging season is crucial to maintaining their quality and ensuring their success when planted. Detours add time and distance, and even idle time, such as sitting in road construction or waiting at a lane closure, results in financial losses from reduced productivity, increased labor costs, and logistical failures regarding moving and shipping product.*

While Globalwise acknowledges the possibility of delays, their statement that these delays will not be significant is subjective and inaccurate. It is unreasonable and illogical not to admit that the massive scale of road and pipeline-related construction throughout our small network of rural roads will absolutely and inevitably create delays throughout the system. You simply cannot add hundreds of trucks and vehicles to a small network of roads, travelling in all directions through numerous phases of road delays, detours and closures and not expect or acknowledge that there won’t be any significant delays. There are no mitigation measures that can prevent this due to the sheer scale of what PWB is proposing. One testimony at the hearing explained that the magnitude of just the initial site grading project will require more than 34,000 round trips by dump trucks hauling pup trailers to haul that amount of dirt away. There is simply no way the construction of this project can coexist with the local farm community. The sheer number of trucks hauling dirt will paralyze the small network of local, rural roads we depend on for our accepted farming practices.”

Response – My analysis – which includes an evaluation of “the digging season” and transportation – is not subjective, nor does it argue that there will be no delays. I have already discussed the many actions the Water Bureau has planned to assist Surface Nursery and other nursery farms with travel through the year. This is also covered in the Farm Traffic Report and the detailed appendix of Attachment 5 in Exhibit H.3.

The number of truck trips in total needs to be considered as it is spread over the many years of construction and the numerous routes that will be used to haul construction materials. There is no

objective, factual basis offered by Mr. Nerison, Mr. Ard, or anyone else in opposition to the Water Bureau Project to support the claim of paralysis of the road network in the Surrounding Lands. Instead, the Construction TIA – which was reviewed and accepted by the county’s transportation planners – shows that the road network has a high level of available capacity and can accommodate construction with minimal delays.

Surface Nursery states oil and gas could be washed into streams and fields, and that on-site practices for preventing damage and leaks have not been adequately disclosed.

Comment – *“Globalwise’s response to Comment 8 is another example of the dismissive, subjective nature of this report. Our comment expressed concern over potential oil and gas being washed into streams and fields, potentially impacting our trees. Globalwise’s response is to first dismiss the concern as they assume to relate to travel through Clackamas County, but they also state simply that all vehicles will be inspected and maintained to avoid release of oil or gas on surrounding lands. Maintenance and inspections are best practices, we agree, but we also want to point out that the operators may be unfamiliar with the hazards that uneven, unpaved, often muddy surfaces create, and the damage and leaks that can happen quickly. They don’t address if there will be onsite fueling and maintenance and if so, what assurances are there that oil and gas won’t be leaked from the source.”*

Response – The use, transport, and storage of all hazardous materials, including diesel fuels, will be handled in full accordance with applicable regulations. Any material classified with a hazardous rating will be stored and used in full compliance with its respective Safety Data Sheet as required by the Occupational Safety and Health Administration (OSHA). See Exhibit I.75, page 4, for more information. There is no reason to think that the maintenance and inspection of vehicles following best management practices will not be effective.

Surface Nursery states that road closures will be challenging for traffic related to their farming.

Comment – *“Comments 7 and 9 address our concerns regarding the proximity of a substantial portion of the construction to our headquarters. With potential closures of both Cottrell and Lusted roads simultaneously, will present major challenges for not just crew, product and equipment movement, but also for our employees, service providers, vendors and customers. Movement of farm traffic is not the only accepted farming practice that will be impacted. For example, providing sanitary restroom facilities to employees is also an accepted farming practice, as is receiving supplies through cooperative deliveries, coordinating outbound customer order shipments with nearby nurseries, and receiving unscheduled visits from customers, suppliers, and vendors. These disruptions to these and other daily operations absolutely forces a significant change in the way we operate our farm, and will no doubt force increased costs as a result. We are disappointed by Globalwise’s response and their apparent lack of recognition for the significant impact this project will have on our farm. It is impossible to comprehend how a construction plan of this scale and magnitude can be carried out without causing substantial disruptions to our operation, as well as every farmer in the area. Globalwise’s conclusion that construction will not significantly affect our logistics, mobility, field access, and numerous other accepted farm practices does not align with our observations and experience. Simply stating that there will be no significant impact does not make it true. The reality is that this massive construction plan will affect our ability to access every*

one of our fields, activities and the proposed alternate routes will undoubtedly have substantial repercussions on our farm operations.”

Response – When Surface Nursery references the closure of Lusted Road simultaneously with Cottrell Road, they omit an important fact: Lusted Road is only closed to the west of Surface Nursery’s headquarters, not in front of their headquarters nor to the east on Lusted Road. Closure of these two roads has the goal of facilitating more rapid completion of pipeline construction, a decision that was made after consulting farmers who agreed that this was preferred over a one-road-at-a-time construction schedule. In recommending the joint closure of these roads, it was explicitly considered how service providers, employees, and outbound trucks hauling Surface Nursery trees to customers would access their headquarters. A suitable route to Surface Nursery, from the west or northwest including Gresham, Portland, or Troutdale, is Oxbow Drive, then to Hosner Road, and onto Lusted Road. From Boring or Sandy, that is, from the south or southeast, the route could include Altman Road to intersection with Oxbow Drive and onward. This adds only 1.5 miles or less to their route compared to arriving from Altman Road and going east on Lusted Road. Alternatively, employees or service providers that arrive at Surface Nursery from Sandy can exit Bluff Road at Proctor Road or Hudson Road, and then take Lusted north and west to arrive at Surface Nursery. This added distance is negligible, particularly taking into consideration that it is only during the temporary period where closures impact the preferred route.

None of these temporary alternate travel routes are a significant change that would result in a measurable impact for Surface Nursery. For example, there would not be a loss of services from a vendor that delivers sanitary stations for Surface Nursery workers. It is highly speculative to claim otherwise. This does not rise to the level of a change in accepted farm practices or a significant increase in the cost of accepted farm practices.

Surface Nursery states Globalwise has not realistically assessed the potential for a change in accepted farm practices conducted at their nursery nor the significance nor cost increases in accepted farm practices because of the Water Bureau Project.

Comment – *“Despite Globalwise’s working extensively with us for two years, they failed to accurately portray our nursery practices. Their conclusion stating that “the Bull Run Filtration Project construction activity that impacts farm travel and field access will not force a significant change in accepted farm practices on lands devoted to farm use in the surrounding lands and will not significantly increase the cost of accepted farm practices on surrounding lands devoted to farm use,” is simply not realistic.”*

Response – My extensive analysis and current and previous responses address each of the alleged impacts claimed by Surface Nursery in their latest comments. My conclusions remain unchanged: Surface Nursery will not change any of their accepted farm practices nor will they have a significant increase in costs of their accepted farm practices as a result of the proposed Water Bureau Project.

I.52 Written Testimony from Ken Carlson, Carlson Farms (Farm Operator G)

Mr. Carlson states that his nursery grows specimen trees and he is concerned about dust affecting the health of his trees.

Comment – “Regarding the discussion of our farm in the referenced report, we must point out that it fails to consider that our nursery is somewhat unique in that we deal mainly with specimen size ornamental nursery stock. The majority of our trees range in age from 20 - 40 years old. Specimen nursery stock is more expensive, larger in size, and more fragile to handle. They are susceptible to dust generated by pipeline construction activities, and dust mites are a major concern as they come with dust and can damage and even kill a specimen size tree, ruining decades of growth and investment.”

Response – I have discussed farmers’ dust issues at length. See [Response to Dust Impacts](#), pages 5 – 7, in Exhibit I.80 (Farm Use Response in Open Record Period 1). Best practices for pipeline construction will limit dust generation. It should be noted that the pipeline construction in Dodge Park Boulevard near this farm (see page 12 of the Farm Impacts Report for a map) will not generate significant dust due to the presence of asphalt over much of the ground.

Mr. Carlson states that he is concerned about transporting trees to his customers.

Comment – “Also, fewer specimen plants can be shipped on a truck, so although we are a ‘small’ nursery, we often have as much or more outbound shipping traffic than a larger nursery. Our standard practice is to sell and ship on demand by customer order. Our trees are sold and shipped on an individual basis. We regularly have customers who call for same-day appointments to see our trees and consider whether they will fit their needs. Traffic varies by the week, and is not constrained by seasons. A customer may be shopping for a tree they need the next day or the next month, so there is no seasonal variance to our farm traffic that uses Dodge Park Blvd. This means we do not plan outbound shipping in advance or by any season, but rather as a customer comes to the farm to find the tree they want, digging and shipping is arranged at that time for as soon as possible. Weather, truck, and crew availability are the biggest factors involved when finalizing a sale. This is our accepted farm practice.”

Response – Mr. Carlson states that his nursery is small. Google Earth historical imagery shows tree removal was more active in 2019 and in 2020 with reduced tree removals since that time, and few trees growing on the site. Recent historical evidence shows infrequent specimen tree sales from this location.

As pipeline construction proceeds in Dodge Park Boulevard, Mr. Carlson will have knowledge of the timing of pipeline work as it approaches his property. Furthermore, Mr. Carlson will be given notification and updates from the Water Bureau and the pipeline construction supervisor as the work zone approaches his driveway. The lane of traffic passage in Dodge Park Boulevard will be on the north side of the road, allowing vehicles from his property unimpeded entry and exit of the driveway to the roadway even when the work zone is directly in front of the driveway. Single loads of specimen trees as indicated by Mr. Carlson will be hauled in a short-bed truck with the capability for ingress and egress. Any delay at the driveway would be measured in minutes. Within 40 to 60 days, the driveway at the Carlson Nursery should be clear of all pipeline construction activity.

Mr. Carlson states that he needs daily farm access.

Comment – “The only access to Carlson Farms is Dodge Park Blvd, which will be significantly impacted by the construction plan. It is very misleading to state that we do not generate a significant number of road trips, when in actuality this study has no idea. For example, this year in our empty fields, we have begun planting row crops which will require more daily, year-round field work and increase farm traffic and truck trips. Field and tree maintenance activities will be performed on a regular, often daily basis by farm employees who will need unencumbered access to the farm, as is an accepted farming practice. It is reasonable to be concerned that the magnitude of this project’s seven-year construction plan will make it difficult for me to find and keep employees who are willing to deal with road closures, delays and detours on a daily basis for seven years. Deliveries, service providers, and vendors are also part of an operating farm’s ‘farm traffic,’ yet none of these things is discussed in the report. This fact, that the report fails to acknowledge what truly constitutes farm traffic and disregards these operationally necessary activities, is further proof that the report makes irresponsible and uniformed claims about the impacts of PWB’s construction plans on the livelihoods of farmers.”

Response – As Mr. Carlson shifts to production of row crops, there will be no significant delay for movement of farm equipment, employees, or farm supplies to or from Dodge Park Boulevard. Any delay will be measured in minutes, even when the pipeline work zone is directly on the other side of Dodge Park Boulevard from the driveway to the nursery.

Mr. Carlson states that the road improvements in the area will cause major disruptions for his nursery.

Comment – “When PWB begins its road improvements followed by pipeline construction on Dodge Park Blvd, and the intersections with Cottrell Rd and Altman Rd, it will force a massive significant change to our accepted farm practice in that we won’t be able to accommodate on demand customer visits, or on demand digging and shipping. This practice will be prevented because there will be times, as stated in the construction plan, that access to our farm will be significantly inhibited. Customers are not going to want to sit in road construction to come view our products, they will choose another nursery that is not located inside of a massive construction site. Getting crews to the nursery to dig the trees will be difficult for the same reasons, as will getting a semi-truck or large container truck to the farm to ship the tree. During wet periods or inclement weather while the road is torn up, it’s reasonable to expect our home and farm access driveways will be close to impassable for any farm-related trucks or equipment, and possibly even passenger vehicles.”

Response – Road segments will have pavement improvements completed in periods of weeks. Employees and customers traveling to the nursery will have continual access, sometimes requiring detours or passing through partially closed areas with minimal delays. It is not “stated in the construction plan” that access to Carlson Nursery will be “significantly inhibited.” The driveway to the Carlson Nursery will not be impassable due to either road improvements or construction activity. Dodge Park Boulevard will not be closed at the driveway. During the pipeline construction, which will move along the road area as construction progresses, Dodge Park Boulevard will be flagger-controlled with one lane of passage.

Mr. Carlson states that a neighbor leases land from the Carlson Nursery and needs road access.

Comment – “We also have a neighboring farm that leases a one-acre section of our property that is in production. They bring their own tractors, workers and equipment in on a regular, year-round basis to maintain their crop, which have a 3-year growth cycles. This is an accepted farm practice, both leasing fields to/from other farmers and land owners, as well as daily, year-round field work. The construction on Dodge Park Blvd will both encumber and at times restrict the access to this field, which is significant change from normal, accepted practice of being able to freely access and maintain our fields and product. Ultimately, it is reasonable to assume that this farmer may end his lease with me due to the encumbrance of access, costing me a 3-year lease contract.”

Response – For the reasons stated above in my responses, there will be no significant delays for any farm vehicles, employees, service providers, or outbound shipping vehicles to access the property Mr. Carlson leases to another farmer.

Mr. Carlson claims the construction Project could result in multiple farmers going out of business.

Comment – “Hopefully, you can understand how very disruptive and costly this project will be not only for our business but for our neighbor and his business overall. The effects of a construction project in this kind of rural neighborhood may very well put multiple farmers out of business.”

Response – I have already explained why there are no significant impacts for the Carlson Nursery or the farmer who leases land from Mr. Carlson. It is unfounded to claim that the temporary impacts of pipeline construction will put farmers permanently out of business.

I.53 Written Testimony from Pat Holt, R&H Nursery (Farm Operator Q)

Mr. Holt states that Globalwise has misrepresented his nursery industry by stating there will be no economic impact to the nursery industry.

Comment – “I have been interviewed by Globalwise Inc. multiple times and I believe they have misrepresented this industry in multiple facets. To say factually that there will be no economic impact to the nursery industry is a major falsehood or potentially a simple misstatement by someone with no knowledge of an billion dollar Oregon industry.”

Response – In several interviews with Mr. Holt, some of the facts he presents in his current letter were not stated or his conditions have changed since our last meeting regarding his nursery operation. This will be explained in the comments below where he claims I have misstated the facts.

Regarding the statement that there will be no economic impact on the nursery industry, that is plainly not what I have stated. “No economic impact” is not the test. Rather, the tests are first, no change in accepted farm practices and second, no significant increase in the costs of accepted farm practices. This is different than no economic impacts – particularly in that the focus is on accepted farm practices and the cost of those practices, rather than on profits.

As far as having no knowledge of the Oregon nursery industry, I have talked to as many of the farmers in the Surrounding Lands as I could identify and reach for discussions. Since many of the farmers in the Surrounding Lands are nurseries, especially those close to the filtration facility and pipeline construction areas, I emphasized study and understanding of their operations. Many of my conversations were in person and were lengthy. Farmers were willing to share extensive knowledge which I gained in this process. Additionally, I have spoken to agronomists, crop scientists, extension specialists in agriculture, and other experts with specific expertise in nursery plant production.

Furthermore, I have been a consulting agricultural economist my entire career and I have an extensive practical knowledge of farming which started in my youth with a farm upbringing. This knowledge has been supplemented by nearly three years of study of the nursery industry. I am qualified to analyze and provide my professional opinion on the Oregon ornamental nursery industry, particularly in the area of the Surrounding Lands.

As further evidence of my understanding of the nursery industry, I would point out that Mr. Holt has not objected to any of the accepted farm practices I stated in detail in my Operations Report. That report includes Ball and Burlap and container nursery production, the two types of nursery production conducted at R&H Nursery.

R&H Nursery states they have 7 total farms and 10 more that contract grow trees, while Globalwise only indicates that R&H Nursery has 3 farms, and states that he has no alternative routes.

***Comment** – “Globalwise states that I have only 3 farms that are all in close proximity to my headquarters farm. This is not correct. I have 7 total and access 10 more that contract grow trees for me. These contract farms are accessed from October to June every year. The only access to the farms are via Carpenter Lane since this the only way to exit the headquarters farm.*

The 6 farms that belong to me are also accessed via Carpenter Lane. These farms range from 2 to 30 acres and are accessed daily. It is necessary for us to access these farms on a daily basis. In the report it lists my farms as Q-F2, F3, and F4. These are all north of Carpenter Lane and the only access is to cross Carpenter Lane, which will be almost impossible to do safely during construction. In Globalwise’s report they state that there is ‘NO ALTERNATE ROUTE’! Yet they also say there is no economic impact to the nursery industry.

My other 3 farms are located in the Sandy area and the Gresham area. The Sandy farms are accessed via Carpenter Lane west to Cottrell Rd, south to Bluff Rd. and east on Bluff to the farms. The Gresham farm is accessed via west on Carpenter Lane, north on Cottrell Rd. and West on Dodge Park Blvd. to the farm. Once again in Globalwise’s report they state that there is ‘NO ALTERNATE ROUTE!’”

Response – The Globalwise report states that R&H has 4 fields (see page 18 of the appendix to Farm Traffic Report, Farm Operator Q). In the immediate vicinity of R&H headquarters, only field Q-F1 was described. Fields Q-F2, F3, and F4, which are across Carpenter Lane from the R&H headquarters, were not identified in our conversations. I learned about R&H leasing these fields from another farmer, and thus included them in my analysis. Mr. Holt has not provided me with information that he had 10 fields contracted to grow for R&H, or what the terms of these contracts

would mean in terms of travel between R&H and those locations. Travel could be limited if the other farms manage the trees until R&H transports them to their nursery for shipping – as appears to be the case from this comment.

Mr. Holt did mention one additional field near Sandy and one near Gresham which are outside the Surrounding Lands. It is understood that R&H takes Cottrell Road to Bluff Road to reach both fields, turning left on Bluff Road to go to Sandy and turning right on Bluff Road to go to Gresham.

Regardless of the location of fields, Mr. Holt's concerns appear to be related to access "via Carpenter Lane ... to exit the headquarters farm." This access has been addressed at length in the Exhibit I.80 Farm Use Response in Open Record Period 1, starting at page 37. Particularly notable for this comment is that the Water Bureau will provide a traffic control accommodation in the form of stop control or a flagger or other measures that would create a gap in traffic to allow R&H nursery traffic to exit the site. This will facilitate both travel from the headquarters to the fields across Carpenter Lane (Q-F3, for example) as well as fields elsewhere in the region and for other farm traffic. Additionally, there are no ditches or other physical barriers to entry of these fields along Carpenter Lane, which gives easy access to nearly every field edge on that road.

The images below are from R&H's Road Rules Variance application (EP-2020-12990) to allow them to use more access points than would normally be allowed. Intersection #5 is the loading dock, and the notes made by R&H on the photos indicate that truck movements here involve the truck pulling in and then backing into the loading dock, before exiting in a forward motion to turn left on Carpenter Lane. The conditions of approval require:

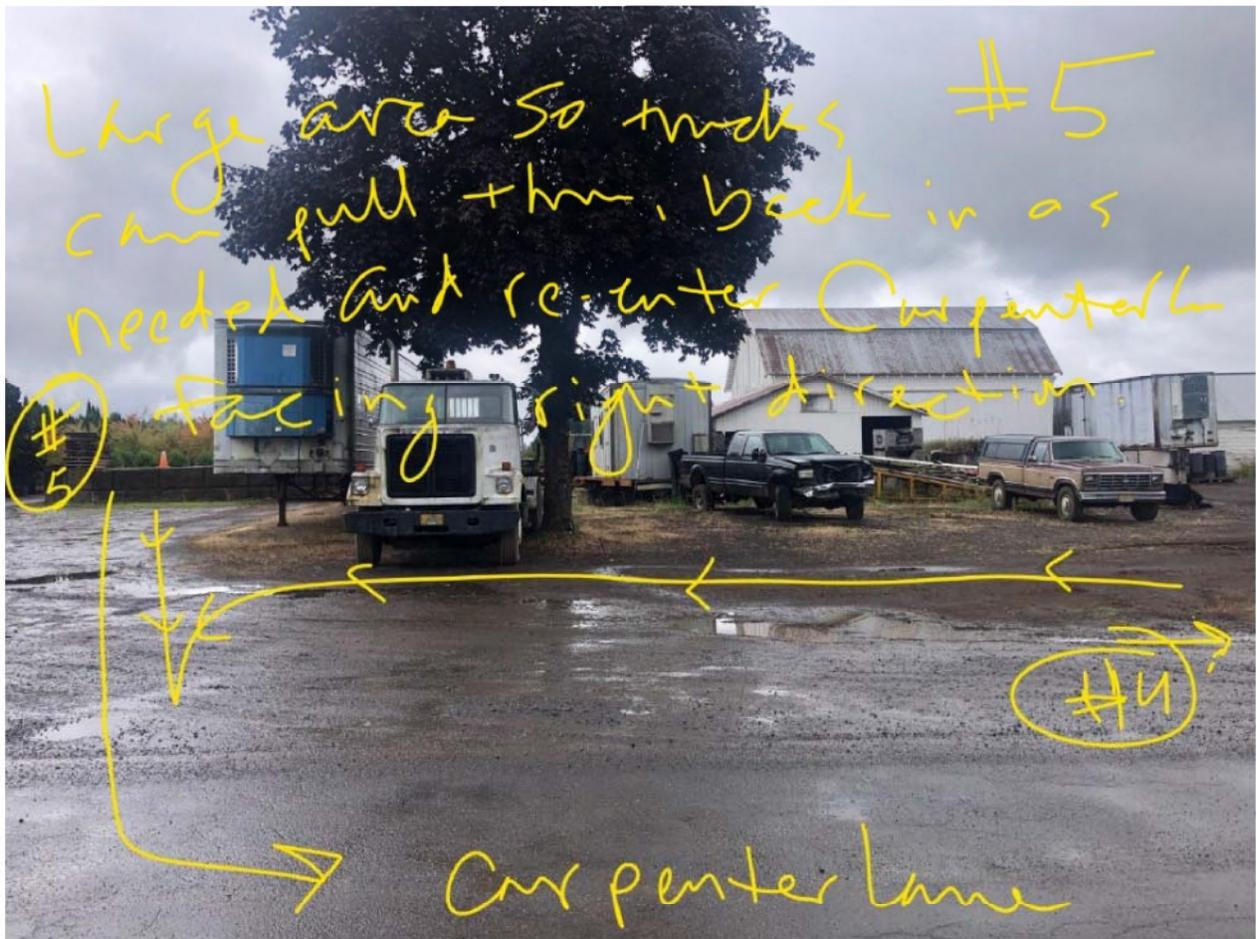
"1. The applicant shall reduce the width of the existing accesses (numbers "4" and "5", per Exhibit A.40) on SE Carpenter Ln to 20-35 feet wide to meet County standards for agricultural accesses [MCRR 4.400; MCDCM Table 1.2.4]. Access number "4" shall serve as an ingress. Access number "5" shall serve as egress. Turn around areas for trucks shall be accommodated within the subject property. A buffer will be required (wall, hedge, planting) along the boundary of the subject property to delineate and separate the two access points."

As explained in Exhibit I.80 Farm Use Response in Open Record Period 1, starting at page 37,

"For the driveway at the loading dock, the potential for conflict with traffic from the project on Carpenter Lane would only arise if traffic is queued on the roadway, preventing or delaying access to the loading dock driveway. Other than the potential for queuing, project traffic will move at normal roadway speeds and access will not be significantly delayed. The driveway is located on the south side of Carpenter Lane, which dead ends after the project site to the east. According to Dana Beckwith, Global Transportation Engineering, the transportation engineer for the project, the filtration facility site will have sufficient storage onsite to allow for staging of trucks delivering and hauling materials. For this reason, no eastbound traffic would be queued directly in front of the driveway [Driveway #4, used for ingress] to impact entering R&H traffic.³ Mr. Beckwith indicated that westbound traffic could potentially queue on Carpenter Lane ahead of the intersection with Cottrell Road

³ Entering traffic would be coming from the west because of the dead end of Carpenter Lane to the east.

during peak construction traffic. While queuing on a public road would not prevent access to the loading dock or other driveways, it could make it less convenient or cause some delay for an exiting R&H vehicle [leaving Driveway #5, the egress driveway]. For this reason, the Water Bureau will include in the project's Traffic Control Plan a requirement that accommodation be made to ensure driveway access to R&H's loading dock and nursery plant holding area [Driveway #5] is not unreasonably delayed. That traffic control accommodation can be in the form of stop control or a flagger or other measures that would create a gap in traffic to allow R&H nursery traffic to exit the site [from Driveway #5]. Mr. Beckwith indicated that these types of traffic control measures can be used for temporary traffic control to facilitate traffic movements and create gaps in traffic at the loading dock access. With extremely low existing traffic volumes, these types of measures are feasibly implemented."



Depiction of "Access #4" and "Access #5" From R&H's Road Rules Variance application (EP-2020-12990)



Depiction of "Access #5" From R&H's Road Rules Variance application (EP-2020-12990)

Note that the Road Rules variance approved use of 6 driveways for the property, which is not reflected in the map in Exhibit I.80 Farm Use Response in Open Record Period 1. In the map below, numbers 1, 2, 3, 4, 5, and 9 were approved for use. The decision only notes that number 8 is not on the subject property. As explained before, driveway #8 is on a separate property "owned by Patrick Holt, who runs R&H Nursery (Testimony in Exhibit H.22). R&H uses multiple accesses to Cottrell on the Holt property in addition to the many driveways on the Roberts property."



Depiction of Numbered Access Points from R&H's Road Rules Variance application (EP-2020-12990)

Furthermore, analysis in Exhibit I.86, the latest update to the Construction TIA Report dated August 1, 2023, evaluates a conservative trip distribution scenario which routes all truck trips to and from the south of the intersection of Carpenter Lane and Cottrell Road with Transportation Demand Management. This analysis shows that even if all truck trips are routed south (left turn movement)

from Carpenter Lane on Cottrell Road to Bluff Road, all area intersections – including Carpenter and Cottrell – still meet the Level of Service performance standards at the peak hours of construction activity.

The transportation analysis shows that even if Mr. Holt has no alternative route of travel between fields and his headquarters, travel to or from his headquarters will not experience the intolerable conditions and gridlock Mr. Holt envisions. R&H will not have any change in accepted farm practices or a significant increase in the cost of accepted farm practices.

Mr. Holt states that the lowest use seasons still have use of the roads.

Comment – *“There is much mentioned about ‘FARM TRAFFIC LOWEST USE SEASONS’. this is a deceiving line in the report. We in the industry all consider our ‘shipping season’ as our busiest, but actually the slowdown is only slight at best. The amount of movement is still great, and sometimes more. If we can’t take care of the plants as they are growing they become unsaleable and results in a major lose of customers and income. This is unacceptable.”*

Response – Nursery operations do have high and low seasons for use of the public road network. Mr. Holt and others told me the main harvest period for Ball & Burlap (B&B) field nurseries is from January to July. Much of the B&B fieldwork is also conducted in spring to late summer. See my Operations Report, pages 35 – 38.

This does not mean that in the low season there is no use, of course. Regardless of the high or low use season, Mr. Holt’s public road farm vehicle travel will not be significantly impacted because the Construction TIA, as updated, shows that even in peak hours of construction truck and commuter traffic, the road system in the area has capacity for the added trips such that the Level of Service of the intersections in the Surrounding Lands will remain within Multnomah County Standards. Therefore, Mr. Holt’s movement during the high and low seasons will not experience any significant delays.

Mr. Holt states that deliveries to the fields they farm along Carpenter Lane will be disrupted or stopped and that Globalwise indicates there is no alternative route.

Comment – *“All deliveries for the nursery are made via Carpenter Lane. These deliveries are made periodically year round. Once again in Globalwise’s report they state that there is “NO ALTERNATE ROUTE”! This could cripple my business as well from not being able to receive vital supplies throughout the year. Furthermore, drivers will refuse to even try to get to the nursery. One example of this would be my outhouse service. We have 4 portable toilets on the Carpenter Lane locations and the drivers that service these have a very tight schedule. If they cannot reach the units in a timely fashion they will just skip the unit and the outcome will be a sanitary and health issue. This is one example of the weekly service we receive. This could be the same for mail, garbage service, etc.”*

Response – The Globalwise report referenced does not determine that there is no alternative route for suppliers of products or services to R&H Nursery and that therefore there will be no access to the property. Suppliers can reach R&H from Bluff Road, or Dodge Park Boulevard, to Cottrell Road,

and then to Carpenter Lane. The language regarding “no alternative route” was used **to create constraints on construction** precisely in order to ensure that a route always is available.

Regarding services and deliveries to farms, R&H has already made this comment as well as Surface Nursery. See Exhibit I.80 Farm Use Response in Open Record Period 1 pages 16-17 and page 31.

R&H Nursery states that traffic congestion and their reputation is one of the greatest threats to their nursery business.

Comment – “One of the greatest threats to my nursery comes from the traffic congestion and our reputation. The volume of trucks on the road will be a logistics nightmare. We will be unable to timely ship our trees to our customers. The delay of traffic will slow common carrier semi’s from reaching the headquarters farm where we load out all order s. As this continues, we will get a reputation on being impossible to reach in a timely fashion and trucks will refuse to take our loads to the east coast. Furthermore, since plant sales have a narrow window in the spring our customers will begin to look elsewhere for their plant material. This will come from the Globalwise report they state that there is “NO ALTERNATE ROUTE”! and the massive volume of traffic in the surrounding area that will cover every road from here to Interstate 5 to Interstate 205 to Highways 26, 212, 211 and even further away.”

Response – See my Response to Traffic Impact for Farm Travel and Response to Traffic Impacts for Product Shipment, in the Farm Use Response in Open Record Period 1 and also my comments on pages 30 – 31 of that memorandum.

R&H Nursery states he was concerned when he read the Globalwise report on agricultural traffic and more so when a farmer said R&H will be put out of business.

Comment – “I was deeply concerned when I read the “COMPATIBILITY OF PROPOSED PORTLAND WATER BUREAU FILTRATION FACILITY AND PIPELINES CONSTRUTION WITH FARM TRAFFIC” report, but when a group of nursery owners got together to read this report one said “WOW Pat, you’re going to be put out of business” and yet the Portland Water Bureau and Globalwise states there will be no economic impact to the surrounding area, this is not true.”

Response – See the response regarding economic impact in the first comment from Mr. Holt above.

Mr. Holt states that his views expressed in interviews were not addressed.

Comment – “I was interviewed at length for these reports, and none of my concerns were addressed.”

Response – This is a restatement of the same comment Mr. Holt made in his written testimony in Exhibit H.22a. My response is on page 28 of the Farm Use Response in Open Record Period 1.

Responses to Non-Abutting Farm Operator Testimony

Ms. Martin states that the Impacts Test requirements are not met in my reports, the Surrounding Lands are too small, and I have not adequately addressed smaller farms in my analysis.

I.8 Written Testimony from Holly Martin

Comment – “The proposed PWB facility simply doesn’t meet the requirements of Section 39.7515(1) and those requirements are mandatory.

Focus: Compliance with 39.7515 (C): The use will not (1) force a significant change in accepted farm...practices...; nor (2) Significantly increase the cost of accepted farm... practices....

The study submitted by PWB to demonstrate compliance with these requirements is inadequate in that the focus area is too small and it focuses on large farms/nurseries and does not sufficiently address the impact on small farms.

It specifically does not include our small family farm, which is down Lusted hill from the facility. Details on our operations are included in my earlier testimony. The project will create a traffic choke point for us, as Lusted is our main route west. The years of construction disruption should be considered, not just the finished operations of the plant, as smaller farming operations with narrower margins may not survive the increased difficulties of attracting customers, getting employees to work on time and getting product to market through the disruptions, which are projected to last years. Wildlife currently closer to the plant site may well be pushed east by the noise, dust and traffic and loss of habitat, resulting in heavier use of our lands with increased damage to crops.”

Response – The Operations Report and Farm Traffic Report do address small farms as well as larger ones. I have specifically assessed potential impacts on the Martin farm in my response to comments by Ms. Martin in Exhibit I.80 Farm Use Response in Open Record Period 1, pages 56 to 57. My conclusions for the Martin farm are stated in that response: there is no significant change in accepted farm use practices and no significant increase in the cost of accepted farm practices.

Regarding the size of the Surrounding Lands, that was addressed in Exhibit I.80 Farm Use Response in Open Record Period 1 on pages 73-74.

I.29 Written Testimony from Jennifer Hart, Black Gold Springs, LLC

Ms. Hart comments on the access to fields in lower Lusted Road and considers it a change in accepted farm practice, considers the loss of farmland for an emergency access road, and considers the questions of farm road size and crossing the emergency access road.

Comment – “The Globalwise Construction Report in Exhibit H.3 Pre-Hearing Statement by the Applicant, is very concerning. How can Globalwise say no alternate route for Operator F and X, then say in the report that it is not going to have a significant change in farming practices and significantly increase the cost of accepted farm practices. If they cannot get to the field it will change farming and be costly to the farmer. Those of us who lease land to the farmers depend on

the farmer to farm our land. It is nuts to think that taking farmland, for pipelines, intertie, emergency, and construction roads is not going to change farming practices or cost the farmers money. For example: Emergency Access (EAR) and Construction Road- A Globalwise Report states, 'This is approximately 0.5 percent of the total acreage in the farm production unit of property '1.' The small loss of acreage will not change the accepted farm practices for production of bareroot nursery crops on this property.' Property 1, is 6 different tax lots. Two lots will be affected are a 5 and 32.5 acre lots. A loss of land is a loss of tree production to a farmer. The farm road size is inadequate along the emergency access and construction road. Farming along side and crossing the construction road is going to create hazardous conditions. Crossing and not being able cross adds significant cost to farming on the EAR."

Response – Ms. Hart is referring to Surface Nursery and Hans Nelson Nursery and their access to their fields on lower Lusted Road. As explained in response to comments by each nursery, they will continuously be able to reach their fields. This access will be by continuing to take Dodge Park Boulevard – which will be open with one lane of passage and a flagger or farm traffic can be flagged through otherwise closed work zones as needed, as is done for emergency provider traffic. Overall, there is no significant change in accepted farm practices and no significant increase in the cost of accepted farm practices.

Regarding the emergency access road, this is in Clackamas County. The six tax lots are farmed as one farm production unit. See Operations Report, Section 5.2 for a discussion of the farm production unit. The separation of the field into a series of tax lots is irrelevant to accepted farm practices. My analysis shows that the permanent loss is 0.6 acres of cropland taken out of production with the emergency access road. This is about 0.5 percent of the entire field (production unit) for Surface Nursery – and regardless it is not part of the Surrounding Lands. The size of the farm road Mr. Nerison will create along the emergency access road will be sufficiently wide for his needs and because the emergency road will only be used for that purpose and not for access to construct the filtration facility, there will be only incidental Water Bureau traffic on that road to cause hazardous conditions for Surface Nursery workers. Emergency vehicles will only access this road in the case of closure of Carpenter Lane, expected to be an extremely rare occurrence. Finally, the Water Bureau will allow the farmer to cross the emergency access road.

I.34 Written Testimony from Angela Parker, Hawk Haven Equestrian Center

Ms. Parker comments on the nervous characteristic of horses and the potential for rider injury.

Comment – *"Horses are naturally nervous, skittish animals. They are easily disturbed by loud sounds, such as noise from the diesel engines and air brakes of trucks, or horn honking by drivers unfamiliar with driving in the vicinity of livestock. Vehicles, especially large loud vehicles, driving past horses are a major problem, and are likely to spook a horse who at best will fidget, or at worst will throw their rider onto the pavement and run away."*

Response – Regarding loud sounds from construction traffic, the Water Bureau Project construction vehicles will be prohibited from taking Carpenter Lane west of Cottrell Road. Carpenter Lane west of Cottrell will not be used as a haul route or a signed detour option for any traffic (trucks, commuters, or the public). Instead, the Water Bureau will direct construction commuters not to use Carpenter Lane west of Cottrell to travel to or from construction areas and will propose to Multnomah County Transportation that signs be placed at either end of this road segment noting that it is for Local Access Only.

Additionally, horses boarded at Ms. Parker's facility are exposed to farm vehicle noise from the diesel tractors and truck engines of at least three farmers who have fields along this segment of Carpenter Lane. This includes semi-trucks that load trees from one nursery that has a loading dock on Carpenter Lane between Cottrell Road and Altman Road.

Furthermore, if Ms. Parker's clients ride horses on nearby roads other than Carpenter Lane, such as Cottrell Road, or Dodge Park Boulevard, they are subject to the same loud farm vehicle noises as are generated by construction vehicles. They are also subject to more vehicles passing them at higher speeds than experienced on Carpenter Lane with more danger than when riding on Carpenter Lane.

Other than incidentally, the Water Bureau will use specific haul routes identified in the Construction TIA, which Ms. Parker and her clients can avoid during the temporary construction period. There are other available roads in the area – including Carpenter Lane west of Cottrell – that will not have truck traffic from the Project.

Ms. Parker differentiates between the driver behavior of neighbors and others who travel through the area.

Comment – *“Neighbors in the area generally understand the need to drive slowly past horses and other livestock, whereas visitors to our area often behave as if they are passing a bicyclist and speed up, passing within a few feet of the animal. This is dangerous and unsafe for the horse and the rider. Widening Carpenter would only cause traffic, including truck traffic, to speed up, creating additional dangers for riders, as well as for pedestrians and bicyclists on Carpenter (many of whom are of school age).”*

Response – As stated above, construction vehicles will not be driving on the segment of Carpenter Lane west of Cottrell Road. Ms. Parker's stables are one mile from the intersection of Carpenter Lane and Cottrell Road. Widening Carpenter Lane to the east of Cottrell Road is not a factor in construction vehicle speed or safety on Carpenter Lane west of Cottrell Road since Water Bureau construction trucks will not be in that road segment.

Water Bureau employees and contractors will not use Carpenter Lane west of Cottrell Road. The Water Bureau will direct construction commuters not to use Carpenter Lane west of Cottrell to travel to or from construction areas. Furthermore, it is the policy of the Water Bureau to instruct and provide safety training to its employees and to require that all contractors provide safety training. There is no reason to assume that the speed limit of 25 mph will be exceeded by drivers or that they will not exercise reasonable caution in their travel to or from the filtration facility site.

Ms. Parker repeats her concern about truck noise and the problems it will cause for her to continue operating her equestrian facility at its current location.

Comment – *“Truck noise will also make my horse training extremely difficult, and cause horse owners and novice riders to go elsewhere. Such distracting stimuli will make this aspect of my business untenable.”*

Response – Increased truck noise on Carpenter Lane in the vicinity of Ms. Parker’s farm use will not be caused by either Water Bureau construction traffic or facility operations, as explained in my responses above.

Ms. Parker reiterates that she considers the area to have quiet roads that are well suited to her clients for horse riding.

Comment – *“This is an agricultural area with quiet country roads and lanes with minimal traffic, which my clients find suitable for horseback riding. My clients will not want to ride on these roads with the increased traffic proposed by the Water Bureau, including but not limited to the truck and employee/contractor traffic proposed during five years of construction of the filtration plant and pipelines.”*

Response – The public roads in the area currently include daily travel by farm vehicles that make noise comparable to the noise level generated by diesel construction vehicles. The area already has commuter traffic that is a factor for her clients who choose to ride on and share the public roads. Furthermore, because Water Bureau Project construction vehicles will not be traveling on Carpenter Lane in the vicinity of her stables, there will be no notable increase in large vehicle traffic or loud vehicle noise. As noted above, other than incidentally, the Water Bureau will use specific haul routes identified in the Construction TIA, which Ms. Parker and her clients can avoid during the temporary construction period. There are other available roads in the area – including Carpenter Lane west of Cottrell – that will not have truck traffic from the Project.

For these reasons there is no reason to expect that the clients of Ms. Parker will seek a different stable for their horses due to changes in traffic in the vicinity of her business.

Ms. Parker states that the increased traffic near her stable on roads due to the Water Bureau Project will cause clients to move to other stables and cause a loss of revenue for her business.

Comment – *“Losing the use of community roads for my clients will force a major change in my equestrian operation and increase its costs by depriving me of substantial revenue, and spreading my fixed costs among far fewer patrons. A number of my clients will simply move their horses elsewhere in search of the peace and quiet and safety they require, and which they expect in an agricultural setting such as ours. Both existing and potential clients will choose to board at a different facility in a country setting. Based upon my experience, once they have made that decision, they will not come back; there are alternative out there, including some close to where some of my clients reside. Regardless of routing, the enormous increase in traffic on the surrounding road system will impede my clients’ access to my farm, delaying travel and encouraging them to move their horses elsewhere. Mine is a word-of-mouth business, so when I lose one client, I am likely to lose the business of future clients as well.”*

Response – Clients of Ms. Parker either ride in her facility’s arena or ride on public roads. There is a limited number of stables her customers could choose to board their horses if they left Ms. Parker’s stable. In my research to identify other stables in East Multnomah County or in Clackamas County, there are only three other stables within three miles from Hawk Haven and only one more if going five miles from Hawk Haven. All except for one have the advantage of off-road riding options that

Hawk Haven Equestrian Center does not have. This indicates those horse owners seeking off-road riding experiences have already chosen those options or have little choice. There is an extreme shortage of horse stables in East Multnomah and Clackamas counties compared to the growing popularity of horse ownership. Even if there was a loss of clients, which is speculative, this does not pose a credible threat to the ability of Ms. Parker to add clients under expected conditions with the construction of the Water Bureau Project.

Ms. Parker ends her comments by stating the Impact Test and concluding that the Water Bureau Project will cause her farm use business a substantial loss of income.

Comment – *“In summary, the proposal before you will force a significant change in my accepted farm practices and will significantly increase the cost of those practices, eliminating much of the farm income on which I depend.”*

Response – For the reasons I have stated in my response to the comments of Ms. Parker above and the responses to her comments in Exhibit I.80 on pages 63 to 64, I conclude that there will be no significant change in the accepted farm practices of Hawk Haven Equestrian Center and there will also be no significant increase in the cost of their accepted farm practices.

I.35 Written Testimony from Jeffrey Kleinman, Attorney for Pleasant Home Community Association

Mr. Kleinman states that Ms. Parker has explained how her farm use business will fail the Impact Test and by itself will require denial of the Water Bureau’s application.

Comment – *“Ms. Parker provides detailed testimony regarding her equine business, and the significant impacts of the applicant’s proposed development upon her accepted farm practices and the cost of carrying out those practices under MCC 39.7515(C). All the other, voluminous evidence in this case aside, that set out by Ms. Parker should be sufficient to compel denial of this application.”*

Response – Ms. Parker’s basis for stating her business will be significantly harmed under the Impact Test rests on two premises. First, that the added noise from construction vehicles will cause unsafe conditions for her clients that ride on surrounding roads. Second, her clients will not want to ride their horses along surrounding roads due to increased danger and unpleasant environment caused by the added vehicles. She further argues that these conditions will cause clients to leave Ms. Parker’s stable for another stable and she will not be able to replace them.

My responses to these premises are stated above after the testimony of Ms. Parker. Ms. Parker has overstated the negative impacts and draws highly speculative conclusions from those overstated impacts. In fact, noise will not increase on Carpenter Lane west of Cottrell and as she indicates her clients are already riding their horses on this and other roads, they are already experiencing farm vehicle traffic as loud as the noise from construction vehicles. Second, danger from vehicles passing horse riders on the roads is already present for any riders who choose to ride on surrounding roads. Third, Carpenter Lane will not see an increase in construction vehicle traffic. The Water Bureau and its contractors will be under strict traffic control conditions to restrict construction vehicles from using

that segment of Carpenter Lane in the vicinity of Hawk Haven Equine Center. Posted signs will direct Project traffic to the specified haul routes. The Project contractors are experienced with the requirement of only operating on restricted routes and the need for strict adherence.

Mr. Kleinman states that farm use impacts on Ms. Parker's equine business may be permanent.

Comment – *“With respect to certain farm practices, such as sustaining equestrian operations, the impacts may not merely be significant, but may well be permanent rather than temporary. The burden of proving the absence of such significant impacts has at all times been on PWB as an applicant. It has not met and cannot meet that burden.”*

Response – In response to Ms. Parker's comments I have explained that there is no significant change in accepted farm practices and there is also no significant increase in the cost of accepted farm practices.

Regarding permanent or long-term impact, I conclude there is no long-term negative impact on Ms. Parkers' farm use. I have already explained the significant disparity between the limited supply of equine boarding/riding facilities and the growing demand by horse owners for the few facilities available in East Multnomah County and in Clackamas County. Any clients who may leave Hawk Haven Equestrian Center for any reason can be replaced by the growing number of horse owners in this urbanizing area that need a facility such as Hawk Haven to board their horses.

Mr. Kleinman states that construction truck drivers will defy the condition imposed by Multnomah County and travel to or from the filtration site by taking Carpenter Lane west of Cottrell Road.

Comment – *“However, as explained by Miss Parker and Brent Leathers, among others, that simply will not happen. Only tank traps will keep truck drivers working for any number of contractors, or serving as owner-operators, from choosing the route that works best for them. Often, in at least one direction, that will include westerly portions of Carpenter.”*

Response – I have already explained that the Water Bureau intends to strictly enforce the condition prohibiting construction vehicles from using Carpenter Lane west of Cottrell Road. Signage and training will reinforce the allowed haul routes. Construction traffic will not be permitted to use that section of Carpenter Lane and a “local access only” sign will be posted to remind drivers and reinforce the restriction. Contractors and material suppliers have multiple means to enforce the restriction, including “spot checks” with a visual survey for compliance up to and including termination of employees who do not comply with the restriction.

I.38 Written Testimony of Jesse Nelson, Hans Nelson Nursery (Farm Operator X)

Mr. Nelson claims that Globalwise has stated there is no alternative to what he states is a closure of Dodge Park Boulevard with pipeline construction in that roadway.

Comment – *“If you refer to Exhibit H.3 (pre-hearing statement by the applicant) Compatibility of proposed PWB filtration facility and pipelines construction with farm traffic study, they state there is no safe alternative. At the hearing was the first time anyone had seen this report. We are farm operator X and on page 87 of the PDF it states “none due to safety issues, the route of travel is only on Dodge Park”. Farm operation F is the same in that there is no alternate. That means if any disruption on Dodge Park we won’t be able to access our farm.”*

Comment – *“To get the digging machine to the other farm we move it using a semi-truck and allow boy trailer. Dodge Park Blvd is the only safe option (as mentioned in Exhibit H.3 page 87). Alternate routes have cliffs on one or more sides, zero shoulder and very limited visibility. The county has placed length restrictions on them for these reasons. We dig trees from November through February depending on the year. We only harvest on dry days when the temperature is above freezing. We require a lot of vehicles and tractors and trailers to move plants during harvest season. They are perishable and we take great efforts to keep them as healthy as we can for our customers. We can have zero delays when harvesting and moving plants. They are bare root which means we leave all the dirt in the field and are very vulnerable and need to be stored properly immediately.”*

Response – Mr. Nelson puts forth the same erroneous claim as Mr. Nerison regarding the time periods when pipeline construction takes place in Dodge Park Boulevard east and west of Cottrell Road. This pipeline construction is not a closure, it is flagger controlled with one lane of passage. Hans Nelson Nursery is not blocked from reaching their field in Lusted Flats. Due to their safety issues, and desire to only travel on Dodge Park Boulevard, they are being accommodated and will have continued access to travel on Dodge Park Boulevard to reach their field.

Mr. Nelson states that in the low season they still need full access to their field in Lusted Flats.

Comment – *“We must be able to access the farm all year long with many sized vehicles and tractors/implements. The study states our lowest use season is July-October. That is when we are taking our biggest equipment on the roads to prepare soil for fall planting (up to 16’ wide implements). We also have very time sensitive sprays and field cultivations that happen in that time window depending on weather. If we are unable to access this farm at anytime as it states in their report the project should be stopped. We must be able to access those farms at anytime with any equipment.”*

Response – Mr. Nelson will not be “unable to access” any portion of his farm at any time. Through my work and discussion with the Water Bureau, the need for Hans Nelson Nursery field access has been built into the Water Bureau’s pipeline construction schedule and plan. Any delays due to pipeline construction will be short in duration and they will not be blocked in reaching their field X-F1. Even with the need to use Dodge Park Boulevard, Hans Nelson Nursery will have the necessary access to their field.

My assessment of the lower level of field traffic is based on my discussion with farmers and my analysis of year-round farm practices as stated in the Operations Report, Exhibit A.33. Like Surface Nursery, Hans Nelson Nursery grows bareroot nursery tree crops. Mr. Nelson has not offered any specific objections to my description of accepted farm practices as described in that report, Exhibit A.33, which was prepared over a two-year period of study. Instead, he seems to agree that the lowest use season is July-October, with details on the types of equipment used in that low use period. As stated above, the "low use" season does not mean that there is no use. Regardless of the high or low use season, public road farm vehicle travel will not be significantly impacted because the Construction TIA, as updated, shows that even in peak hours of construction truck and commuter traffic, the road system in the area has capacity for the added trips such that the Level of Service of the intersections in the Surrounding Lands will remain within Multnomah County Standards. Therefore, Mr. Nelson's movement during the high and low seasons will not experience any significant delays.

Mr. Nelson states that construction of the "site" (the filtration facility) will have a large impact on their farm.

Comment – "The construction of the site will greatly impact our nursery operation. The increased traffic will make it more dangerous for my employees to get to work. We are very dependent on weather and need to be able to act quickly when we have the opportunity. If we are delayed planting it will delay plant growth and the crop could be a complete failure. Our trees are in the ground for 2-4 years so we would have no crop or income 2-4 years out. It may seem like a simple operation, but it is far from it. We must contend with many factors such as weather, plants, soil conditions etc. Any change in this could mean a crop failure."

Response – Regarding employee travel to work, Mr. Nelson told me that all of their employees report to their headquarters on Waybill Road. Their headquarters is 3.3 miles south and east of the filtration facility site and not located on a haul route. Moreover, as has been explained before, the Water Bureau will require all contractors to receive comprehensive driver training. This was addressed in response to similar comments in Farm Use Response in Open Record Period 1, Exhibit I.80, page 17. There is no added traffic danger for Hans Nelson employees driving to work.

From the Hans Nelson Nursery headquarters, employees will go to field X-F1 in crew buses. There is no reason to expect there will be any greater danger in travel to the field east and south of the filtration facility site. Furthermore, as we have stated in previous responses, the construction vehicle drivers will be trained to travel using safety procedures with precautions for any conditions such as slow-moving farm vehicles. There is no reasonable added concern for Hans Nelson employee safety during the Project construction period.

Comments relating to delays from traffic are addressed elsewhere, including the Response to Farm Traffic in Exhibit I.80 Farm Use Response in Open Record Period 1.

Mr. Nelson states that in spring months they have time sensitive field activities which they claim will be disrupted by the Water Bureau Project.

Comment – “We plant our trees in the spring when we have a good weather window. The weather can change rapidly in the spring and this, in turn, can change our workplan multiple times per day. During the year we move mowers, sprayers, stakes, tractors, irrigation supplies, employees and supplies between fields and farms keeping the plants growing straight. We irrigate our plants and requires a lot of monitoring throughout the growing season. If we miss a key irrigation cycle it could mean the plants don’t get to saleable size and we are unable to sell them. All these activities depend on weather, insect pressure and plant growth stages. None of this can be disrupted by a project like this that must be placed in the community it serves.”

Response – All of the functions mentioned in this comment are covered by the accepted farm practices I have addressed in the Operations Report in Exhibit A.33. The time sensitive nature of farm work is understood. The disruption referenced is not specifically stated, but it is assumed to be road congestion during spring months. The Water Bureau is accommodating Hans Nelson Nursery and other farmers with an accelerated pipeline construction schedule with the minimum of time in the roads as possible but also following the 11 constraints on pipeline construction described in the Farm Traffic Report. Comments relating to delays from traffic are addressed elsewhere, including the Response to Farm Traffic in Exhibit I.80 Farm Use Response in Open Record Period 1.

Mr. Nelson states that I have incorrectly analyzed data and do not have the expertise to evaluate farm impacts.

Comment – “I was interviewed for the agricultural impact analysis reports produced by Globalwise (exhibit A.33). During the interview I explained our traffic patterns and routes. I was not mentioned in the report even with Globalwise knowing we rely on roads adjacent to the proposed plant. After reading the reports that were generated by Globalwise, I have no idea how they concluded there is no impact to agriculture. They manipulated data and they are not experts in nursery production. They cited sources such as magazine articles and used only pieces of interviews that helped make their pre-determined outcome of no impact. Only a nursery person who lives and works in the area could give you the true impact.”

Response – I have followed the Farm Impacts Test in all of my analyses and provided explanations for my responses. I have determined in all cases that there is no impact or no significant impact on accepted farm practices. Also, regarding the increase in the cost of farm practices, my analysis has determined that there is either no increase in the costs of accepted farm practices, or no significant increase in the costs of accepted farm practices. This has been carefully analyzed farm-by-farm in my reports and in response to each farmer’s comments.

I have explained elsewhere in this memorandum my expertise and extensive study of nursery production in this area.

Mr. Nelson states the survey area is too small to capture the impacts of outbound shipping.

Comment – “Their survey area (1/2-mile radius) was not a representation of the area that will be impacted. The agricultural community in this area works together. We are all willing to help each other out and do regularly. We do combination loads for delivery and shipment that may originate in one place and have multiple deliveries to 2-6 different farms. On outbound shipments this is common practice. A semi-truck will pick up a portion of the refrigerated trailer at multiple locations. This is hard enough with the e-log books that require shut down periods. Any delay from construction or operation of this plant will make those delays worse. With bare root trees in a reefer we can’t have any delays. We plan very carefully to make sure the plants are in there for the shortest time possible. We use tracking units that record location, temperature and humidity in the trailer. There is a lot of value on a reefer and the plants can’t be replaced. If the plants get to the customer in bad health it gives our nursery a bad reputation. That is a cost that could put us out of business.”

Response – The reference to the one-half mile area around the filtration facility was addressed in the first open record period. See pages 49-50 of Exhibit I.80 Farm Use Response in Open Record Period 1.

Also, the adequacy of the size of the larger Surrounding Lands with regard to the nursery industry having more than one nursery location being loaded for outbound shipping was addressed in Exhibit I.80 in response to Mr. Jim Johnson on pages 73-74.

I.43 Written Testimony from Brittany and Aaron Cory, Free Rein Stables

Ms. Cory comments that their horse stable business has already had an interruption caused by construction related to the Water Bureau’s Lusted Hill Corrosion Control facility.

Comment – “Construction thus far has already disturbed my home, vibrating the entire house when they were moving equipment, blocking off the entrance to driveway and business while land and unloading heavy machinery. During the construction that has taken place thus far, it has already caused me to interrupt my paying clients and stop working due to the safety of the situation. Horses are very sensitive to noise and vibration and the result can be throwing the rider causing injury, or even death. Even handlers on the ground are at extreme risk of being run over, trampled or kicked when a horse is spooked by loud noises and heavy machinery. It would be detrimental to my business, and to the rescue horses we rehab and train. I grew up at the neighboring property so I am very familiar with the nature of this quiet country setting, and this proposed plan would change the nature of that, my business and in turn could force my family to move because we could no longer afford this property without the income of the business.”

Response – Ms. Cory references the construction activity at the Water Bureau’s Lusted Hill Corrosion Control Facility above the stables on Cottrell Road just east of the intersection of Cottrell Road and Lusted Road. That work is not part of the Project (it was approved in a prior conditional use land use decision for the Lusted Hill property). The Corrosion Control facility is 0.4 miles from the stables, but the water line on the Diack property is closer to the Cory property. She reports vibration at her residence but did not indicate vibration was an impact related to her farm use. The impact on her business was equipment that blocked her driveway while the contractors were loading and unloading heavy equipment (she does not say how long this loading took) which “interrupted” her

paying customers. The claim of safety of the situation was not explained in sufficient detail to provide a response.

Notably, although Ms. Cory describes construction from the Corrosion Control project that vibrated the house, she doesn't indicate that any horses were disturbed – only that “the result can be throwing the rider”. If there had been any adverse event with a horse during the Corrosion Control project, one would expect Ms. Cory to mention it specifically, rather than in a future, theoretical manner.

Any impacts experienced by the Corys would be greater from the Corrosion Control facility than from either Project pipeline or filtration facility construction. This is further explained in my response to Ms. Cory's next comments.

Ms. Cory comments that her customers use the rural roads for riding and horses are easily disturbed along roads. Some drivers are not aware of the safety needs of riders. Also, she claims truck noise from the Project construction activity will result in customers to avoid use of the public roads and therefore cause her to lose business.

Comment – *“I do not have riding trails on my property and there are no accessible public trails in this area. Therefore, the quiet country roads around my farm, most especially including Lusted Rd, Cotrell Rd. as well as adjoining and nearby rural roads such as Cottrell Road, are an important feature for existing and prospective clients who wish to ride outside of the arena. Such riding on country roads is an accepted farm practice of farm operations such as mine.*

Horses are naturally nervous, skittish animals. They are easily disturbed by loud and especially uncommon sounds such as noise from the diesel engines and air brakes of trucks, or horn honking by drivers unfamiliar with driving in the vicinity of livestock. Vehicles, especially large loud vehicles, driving past horses are a major problem, and are likely to spook a horse who at best will fidget, or at worst will throw their rider onto the pavement and run away.

Neighbors in the area generally understand the need to drive slowly past horses and other livestock, whereas visitors to our area often behave as if they are passing a bicyclist and speed up, passing within a few feet of the animal. This is dangerous and unsafe for the horse and the rider. Widening Carpenter would only cause traffic, including truck traffic, to speed up, creating additional dangers for riders, as well as for pedestrians and bicyclists on Carpenter (many of whom are of school age).

Truck noise will also make my horse training extremely difficult, and cause horse owners and novice riders to go elsewhere. Such distracting stimuli will make this aspect of my business untenable.

This is an agricultural area with quiet country roads and lanes with minimal traffic, which my clients find suitable for horseback riding. My clients will not want to ride on these roads with the increased traffic and loud noise and vibration proposed by the Water Bureau, including but not limited to the truck and employee/contractor traffic proposed during five years of construction of the filtration plant and pipelines.

Losing the use of community roads for my clients will force a major change in my equestrian operation, and increase its costs by depriving me of substantial revenue, and spreading my fixed costs among far fewer patrons. A number of my clients will simply move their horses elsewhere in

search of the peace and quiet and safety they require, and which they expect in an agricultural setting such as ours. Both existing and potential clients will choose to board at a different facility in a country setting. Based upon my experience, once they have made that decision, they will not come back; there are alternatives out there, including some closer to where some of my clients reside. Regardless of routing, the enormous increase in traffic on the surrounding road system will impede my clients' access to my farm, delaying travel and encouraging them to move their horses elsewhere. Mine is a word-of-mouth business, so when I lose one client, I am likely to lose the business of future clients as well.

In summary, the proposal before you will force a significant change in my accepted farm practices and will significantly increase the cost of those practices, eliminating much of the farm income on which I depend or possibly forcing me to close my business. I respectfully request that this application be denied."

Response – With regard to construction vehicle engine and air brake noise, this is not expected to be significant at the Cory's stable because lower Lusted Road is not a haul route for either the pipeline construction or the filtration facility. Excavation materials and construction supplies will not be transported on this road near the stable. The closest travel route will be Cottrell Road about 0.4 mile or farther from the stable. Construction vehicle noise should not disrupt horses at the stable.

All of the remaining comments of Ms. Cory are nearly identical to the comments of Angela Parker. Refer to my responses to Ms. Parker regarding noise impacts for horses ridden on the public roads, existing road noise conditions with farm vehicle travel in comparison to the construction period, and driver behavior when encountering horses in the area.

For all of these reasons, there will be no significant changes in accepted farm practices and no significant increase in accepted farm practices at the Cory's business.

I.46 Written Testimony from Michael Ard, PE, Ard Engineering

Mr. Ard identifies in my analysis that October is the month of lowest farm travel.

Comment – *"Notably, the report attempts to identify periods where construction activities will not materially impact farm operations. The most significant of these periods appears to be the month of October, when they would recommend that closures be permitted for the segment of SE Dodge Park Boulevard east of SE Cottrell Road, closure of the intersection of SE Dodge Park Boulevard at SE Cottrell Road itself, and the closing of Dodge Park Boulevard "to cross the road onto the private property at the west end of the Finished Water Pipes".*

Response – Farmers did consistently report that October is the lowest month for farm vehicle travel on the area's public roads. Mr. Ard, like Mr. Nerison, Mr. Nelson, and Ms. Hart incorrectly characterize the pipeline construction in Dodge Park Boulevard as a road "closure." Maintaining one lane of passage at all times in a pipeline work zone is not a closure. These repeated statements appear to be an effort to claim that farmers are denied field access if they need to reach fields in lower Lusted Flats and they only use Dodge Park Boulevard for safety reasons. Although there are short periods – measured in days – when the two short sections of Dodge Park will be closed (the actual intersection of Cottrell and Dodge Park and where the Finished Water Pipes turn north and cross the road), during these short periods Dodge Park will not be closed to farm traffic. Farm

traffic will be flagged through otherwise closed work zones as needed. Each of these closures is required to be in the month of October, the lowest month for farm vehicle travel, by the pipeline constraints in the Farm Traffic Report #3 and #4. These are two of the 11 pipeline construction constraints developed to assist farmers with travel during Project construction. These same constraints will be applied to the “fix-it-first” road repairs as well.

Mr. Ard states that August to October is not the lowest time for road use for some farmers.

Comment – *“The identified low season when the most significant road and intersection closures are permitted is not a low season for many farm uses. ‘August through October is one of the busiest field work seasons for some farm uses,’ one farmer stated, ‘We do a ton of fall planting of trees and cover crop.’”*

Response – As stated previously in response to this comment by Mr. Nerison of Surface Nursery, and from other farmers I spoke to, September and October are low farm activity months for nurseries. July and August are higher months for travel but are still considered less critical and with fewer trips required than other months of the year. The pipeline construction schedule was developed in conjunction with the Water Bureau and its contractors using the best data gleaned from meetings with farmers as input to the schedule. The focus was on adhering to times of lower seasonal farm activity which greatly reduces farm traffic disruption.

Mr. Ard relayed a comment from a farmer about a particular spray activity that is crucial for fall field work.

Comment – *“One farmer indicated that they spray trees with copper in the fall. The timing of the spraying is critical, since the trees need to lose most of their leaves prior to spraying, and they need about 10 dry working days with no wind to accomplish the task. The trees need to be dry prior to spraying and need to remain dry long enough after spraying for the chemicals to be absorbed. This task cannot be scheduled in advance since the timing is dependent on temperature (which drives trees to lose their leaves) and weather. If the task cannot be completed it is ‘like Russian Roulette,’ with the potential for loss of 25 to 30 thousand trees, as well as loss of reputation when unable to fulfill deliveries. This need directly conflicts with the identified low season when the most significant road closures are scheduled.”*

Response – No farmers raised this specific concern in their comments. The statement by Mr. Ard forwards a farmer’s comment that there is a 10-day window in the fall with weather complicating the timing to spray. This is hearsay from a transportation specialist commenting outside his area of expertise. Not knowing the field or fields where the farmer needs to travel makes it impossible to give a specific response. However, if a road is closed when that farmer needs passage to reach his field in the work zone and there is no reasonable alternative, the pipeline contractor will accommodate the farmer. Where no detour is available, farm traffic will be flagged through otherwise closed work zones.

Additionally, as I previously have pointed out, there are several ways the farmer can overcome accessing the field entry using accepted farm practices. These include taking a detour, adjusting the order of field routing over the course of a day, considering leaving spray equipment in a field

overnight, or using areas of a field edge for entry that are not usual entry points but where no barriers of entry exist. Any of these are accepted farm practices to remedy the concern.

Mr. Ard comments that wide farm implements on a narrow road cause problems.

Comment – *“Putting 16-foot-wide implements on narrow roads with blind curves is a bad idea. Multiple pieces of farm equipment are 16 feet wide, including the equipment used to work soil. A photo illustrating the width of one piece of farm equipment is provided below. Having significant traffic volumes traveling in the opposing direction would substantially impact the viability of travel routes even under non-construction conditions.”*

Comment – *“Road closures will force farmers to use alternate travel routes to access fields. However, some of the required alternative travel routes are not viable for large-scale equipment travel due to narrow roadway widths, roadside obstacles which further limit the usable roadway width, sharp curves which restrict sight lines and impact safety, and roadway grades on hills. One farmer stated, ‘There is no reasonable alternative route available. That would stop us.’”*

Response – Without more reference to the road location in the Surrounding Lands I assume this comment is a reference to the unfounded concern that farmers are blocked from field access using Dodge Park Boulevard and are forced to use Lusted Road, Proctor Road, or possibly Hudson Road which have curves and are narrow. As stated above, the pipeline construction plan maintains a single lane of passage through the work zone on Dodge Park Boulevard east of Cottrell Road when there is pipeline construction and does not require any farmer to shift to another road to reach fields in Lusted Flats. For the short period where the actual intersection of Cottrell and Dodge Park is otherwise closed, farm traffic will be flagged through as needed to reach Lusted Flats.

The contractors confirmed to me that tractors pulling implements as wide as 16 feet can be transited through the work zone in Dodge Park Boulevard. This movement of wide farm implements is infrequent. However, the Water Bureau will accommodate the wider farm equipment transit through the construction area from the Cottrell Road intersection and east on Dodge Park Boulevard.

Mr. Ard references farmers who indicate that there are numerous barriers to field entry except at well-established field access points.

Comment – *“Where roadside ditches exist, they act as barriers to entry to fields. Attempting direct access away from designated entry points can result in water quality issues, particularly during wet conditions, and entry is often restricted by fences. Accordingly, farmers cannot rely upon using direct access from adjacent roads into fields away from dedicated access driveways.”*

Response – In my many trips throughout the Surrounding Lands, I observed many field edges that were not blocked by fences, deep ditches, or even landscape plantings that would prevent access. This observation was not intended to imply that this is always an option for all farmers. However, it is an option many times of the year in many locations, and it serves to show that farmers use flexible access points, a characteristic that serves them well in the Surrounding Lands.

Regardless, the Water Bureau will not force farmers to “rely upon using direct access from adjacent roads.” Where no detour is available – such as for direct access to a driveway – farm traffic will be flagged through otherwise closed work zones.

Mr. Ard relies on some farmer comments to suggest that farmers do not leave vehicles in fields overnight.

Comment – *“One purported solution to impassable roads was to leave farm equipment in the fields overnight. However, people vandalize and steal diesel and batteries out of vehicles, so farmers strongly prefer not to leave vehicles in the fields overnight. Vehicles are rarely left overnight in fields currently, and farmers actively try to avoid the practice.”*

Response – In my many discussions with farmers in the Surrounding Lands I asked each about this farm practice. I was told it is utilized by several of the farmers as an accepted farm practice. It depends on conditions in the field, particularly the potential to leave equipment where it is out of sight from public roads and residences.

Mr. Ard forwards one farmer’s comment that shipping loads is a challenge due to area road conditions and tight scheduling of common carriers.

Comment – *“Trucker schedules - Narrow roads where vehicles cannot pass make shipping ‘unreliable.’ Truckers operate within constraints limiting the hours they can drive without rest, and shipment schedules often need to be coordinated among several drop-off and pick-up locations. Shippers have stated on multiple occasions that ‘If I can’t get in and out right now, I’ll be here overnight.’ Accordingly, even relatively modest initial delays to delivery vehicles can become overnight delays due to trucker schedules. Further, a parked truck at the loading dock obstructs dock access for other trucks, resulting in delays to multiple shipments, and prolonged, ongoing access concerns may result in shippers refusing to service local agricultural uses, resulting in the need for the businesses to do their own deliveries. This represents a significant and costly change to their existing farming practices.”*

Response – This comment has been raised numerous times and addressed previously. See Exhibit I.80 Farm Use Response in Open Record Period 1, in particular the Response to Traffic Impacts for Product Shipments, on pages 10 – 11, as well as the Farm Traffic Report.

No reference is given to which farm locations may be referred to regarding “a parked truck at the loading dock obstructs dock access for other trucks.” This depends on the headquarters since some nursery warehouses have wide bays or loading doors with capacity for more than one truck to load.

However, the scheduling for pipeline work is designed for trucks to use alternative roads if needed and the Construction TIA, even with single access to the filtration site at Carpenter Lane, shows there is intersection capacity for truck movement at acceptable Level of Service for County standards. See Exhibit A.230 and Attachment 3 of Exhibit H.3, pages and Exhibit I.86, pages 2-3. The concept that road traffic will result in a “shipper refusing to service local agricultural uses” is a speculative, slippery slope argument that does not logically follow from small delays that do not exceed county level of service standards on the roads.

Mr. Ard states that if farmers currently face road closures, they are short duration closures.

Comment – “The materials prepared by Globalwise on behalf of the applicant opine that detours are common concerns for farmers, and they already have to deal with them for road construction and emergency conditions. However, emergency impacts generally have very short durations which do not impact long-term equipment and shipping needs, and do not have implications regarding long-term delivery reliability which would cause shippers to consider refusing service. Detours and delays associated with typical road maintenance occasionally have sustained impacts over multiple days; however, again they do not generally impact long-term delivery reliability, and they ultimately promote improved mobility within the local area, benefiting the transportation system for farmers and residents.

In contrast, the proposed conditional use would have sustained impacts over a period of multiple years and would do nothing to promote or enhance mobility for local residents, farmers, and businesses. The project impacts are not necessary for maintaining a viable transportation system in the site vicinity and result solely from the desire to locate a large-scale conditional use within an incompatible area.”

Response – While the Project construction activities are longer than typical emergency road closures, they are still temporary, and pipeline construction is not strictly a road closure. For example, local access for farmers needing to reach their fields in a pipeline work zone will be accommodated. Moreover, each segment of road impact from the pipelines construction will be similarly short in duration -- as the pipeline construction zone inherently moves -- approximately 30 to 50 feet per day for trenched construction and after completion of a section of trenchless construction. Finally, farmers also currently navigate temporary traffic backups, such as at schools, that cause farmers to use alternate routes or experience delays.

The Water Bureau will proactively address road conditions during construction with its many mitigation measures that have been previously described. These include using the lowest time for farm travel for pipeline work at intersections, pairing pipeline construction work in two roads that cause little or no impact on farm travel to reduce total road construction time, keeping the critical route of Dodge Park Boulevard open with one lane of passage or allowing farm passage at the pipeline construction zone, using Transportation Demand Management to reduce trips in the roads near the filtration facility and maintain acceptable intersection Level of Service, and using internet services like Oregon’s Trip Check to update traffic conditions for farmers and others traveling in the Surrounding Lands.

Pipeline construction will be performed on a staggered and limited schedule; it is not 5 or 7 years of construction. Routes for all construction vehicles will be managed to avoid causing the kinds of congestion described by opponents of the Project.

I.47 Written Testimony from Mona and Jeff Ayles

Ms. Ayles states that they have a u-pick farm near the filtration facility and their crops would be impacted by dust and other air particulates.

Comment – “Not only do we have 300 blueberry bushes, which we are growing organically, we also have 9 pie cherry trees. Do you know how hard it is to find pie cherries this side of the

mountains? Don't you just love a fresh cherry pie???. These are all for our u pick farm. No, I'm not certified organic due to costs, but we use no non organic fertilizers or pest controls. It's very important that the blossoms in the spring are pure, ie no dust and god knows what else on the flowers and plants. It's very important to keep our pollinators healthy and in abundant numbers. Just randomly, I came across the attached information regarding bees this morning. Please read. Without bees, we don't eat.

We also have chickens and sell the eggs. Perhaps you've heard of us....'Girls a-layin' It's very important to keep the girls healthy and they eat the grass, weeds and bugs. What they eat goes into the food supply and into you. You want them to eat healthy bugs."

Response – I have discussed farmers dust issues at length. See Response to Dust Impacts, pages 5 – 7, and Response to Particulate Impacts, page 11 in Exhibit I.80, the Farm Use Response in Open Record Period 1.

I.50 Written Testimony from Kurt Clemence, General Manager, Tree Source (Farm Operator U)

Mr. Clemence states that they incur major costs in wages and fees for delays in shipping nursery products to their customers.

Comment – “The Globalwise report assumes TSB is a farming operation with no farm traffic and thus no need for Alternate routes. (Ref. GCP pg. 36). Although we only minimally use the surrounding public roads for movement of our farm equipment, it is absolutely imperative that our business has unencumbered, year-round access to all roads in the surrounding road network to maintain operations related to outbound shipping, in-bound deliveries, customer traffic and commuting employees. These concerns are outlined below.

TSB utilizes three 26' box trucks to procure material throughout the Willamette Valley on a daily basis. The main routes our local trucks take include Bluff Road to head north and west, and Hwy 212 to head south. We depend on these routes to bring back material in time to be 'cross-docked' and reloaded on limited to paying overtime to our drivers (avg. \$72.00/hr) and to our loading crew (avg. \$114.72/hr), detention rates to our trucking brokers (avg. \$200/hr), possible overnight fees ranging from \$500-\$1000, and missed delivery times to our customers and causing TSB to reimburse landscape crews for waiting on trucks at an average of \$45.00/hr. On top of this, there is no way to quantify the negative effect on our brand and future lost sales due to upset customers.”

Response – I only had access to limited information about Tree Source because Mr. Clemence only spoke to me once on September 3, 2020 and thereafter did not return calls or emails.

Mr. Clemence describes the nursery's own trucks delivering plants for cross docking and reloading. The trucks travel roads that include Bluff Road going west from Tree Source and also roads to the south of the nursery to reach Highway 212. His claim is not justified that the roads around their nursery will be congested from Water Bureau construction traffic and cause them to incur huge fees for delays in customer shipments plus loss of reputation. First, the traffic routes Mr. Clemence describes are not on roads where pipeline construction will occur. Second, the Water Bureau will conduct Transportation Demand Management to keep construction vehicle traffic within limits so

intersections meet acceptable Level of Service standards. See Exhibit A.230, Attachment 3 of Exhibit H.3, and Exhibit I.86.

Mr. Clemence states that I did not recognize that Tree Source has only one outbound shipping route.

Comment – *“The report does recognize there is not an alternative Outbound Shipping Route for 53’ semis. As is common practice in the nursery industry, we use common-carrier, over the road semi-trucks for shipping live product from our location to customers. This point is one of my main concerns. There is only one safe and acceptable route to and from our loading area on 362nd Ave (see attached map). Our outbound trucks travel to and from I-84 in Troutdale, OR. The third-party source, www.truckdrivingdirections.com, confirms this same route we ask our outbound trucks to take. Any delays to our shipping schedule will also cause an undue financial burden as mentioned in the previous paragraph. As a logistics company, our main goal is to meet our customers’ demand with live, quality trees at the exact time their crews are onsite to receive the trees. As mentioned before, delays to expected delivery times cause financial burden in the form of detention fees, overnight fees, lost time wages, credits due to death loss of material, and unknowable loss of future sales.*

Under the figure ‘Summary for Farms Traveling on Bluff Road’ (Ref. GCP pg. 36), ‘No’ is marked under Alternate Outbound Shipping Route’ for Operator U (TSB). However, directly above in BOLD ‘Alternative Outbound Shipping Traffic Route’ it states ‘The secondary outbound shipping route is SE 362nd Ave north to Bluff Road then east on Bluff Road. Travel on Bluff Road is the only alternate outbound shipping route.’ Not only is this statement a contradiction and inconsistent, this suggested route disregards the safety of the semi driver as well as all drivers traveling at this intersection. Globalwise’s statement suggests semi-truck traffic take a route that involves turning east instead of west onto Bluff Road which is an extreme 45-degree angle turn and causes semis to cross over and take up both directional lanes to make the turn. Under normal conditions, without added construction traffic loads and drivers in a hurry to get around construction, this is an extremely dangerous maneuver. With the addition of delayed and re-routed traffic, and especially if PWB is granted construction access through their proposed ‘Emergency Access Road’ on Bluff Road directly across from our farm, this becomes an even greater danger to commuters and semi drivers. This report fails to acknowledge the added time for their suggested alternate routes. In this case, if outbound shipments must use Bluff Rd east – the opposite direction of Troutdale, in addition to being an unsafe alternative, this routing adds over 35 minutes in each direction. That is time that the operator will charge TSB for, and that extra hour could have a serious ripple effect on overall logistics. The only acceptable and safe route is Bluff Road west towards Troutdale.”

Response – With Mr. Clemence’s explanation, it appears that outbound shipping on common carriers will only use Bluff Road to the west of their nursery and proceed to Orient Drive and then turn north to I-84. Based on the traffic analysis of Global Transportation Engineering, the intersections studied show these roads will be maintained at the required Level of Service and experience only minimal delays. See Exhibit A.230.

According to the TIA analysis of Global Transportation Engineering, there will be minimal increases in travel time for semi-trucks on Bluff Road during Project construction. Therefore, the impacts on Tree Source described by Mr. Clemence are unfounded.

Mr. Clemence indicates their seasonal shipping season more accurately has its lowest month in December and that travel impacts include employee travel to work, and vendor/service provider travel.

Comment – “Also, on page 36 of the GCP in the figure ‘Summary for Farms Traveling on Bluff Road’, it states Operator U’s ‘Farm Traffic Lowest Use Seasons’ as July-January, and that during these months there is no alternate farm traffic route needed. This is completely incorrect and misrepresents our farm operations. Shipping customer orders, local deliveries, employees and our three box trucks utilize Bluff Road multiple times a day, every month of the year, definitely including summer and fall months. Typically, our lowest shipping months are December, January and February, but only in the fact that there a slightly fewer outbound shipments those months, and that number is never zero. However, normal farm operations and ‘Farms Traveling on Bluff Road’ involves much more than just outbound shipments to customers. Globalwise fails to consider all the logistical needs of a normal farming operation, and that our ‘farm traffic routes’ are more than just travel between fields and headquarters as defined in appendix A, page 9. Outbound shipments are crucial, but they don’t happen without the entire operation running smoothly, from employees commuting to & from work to vendors, service providers, and regional logistics to organize those customer orders. Not accounting for the whole picture misrepresents not only TSB’s farming operations; it misrepresents the scope and scale of the impact to every farmer affected by this proposed project.”

Response – Since I did not have the benefit of speaking further with Mr. Clemence, I did not know some details of the seasonal variation of shipping and other farm traffic. However, the need for near year-round road travel as described in the comment does not change my conclusions. Tree Source will have access to the road system with minimal slowdown of travel time during construction based on the above cited Construction TIA.

My use of the term farm traffic does include the wider range of travel described by Mr. Clemence, namely employee travel as well as vendors and service providers. Since they travel through the same intersections as farm vehicles, they have the same ability to reach the nursery headquarters, or fields. Adding them to this comment does not change the conclusions of my analysis.

Mr. Clemence reiterates the expected severe impacts of Water Bureau construction traffic on Tree Source.

Comment – “Travel on Bluff Road, in both directions to and from our farm, is crucial to maintaining not just normal farming operations, but to staying in business entirely. Limiting and/or redirecting traffic on Bluff Road, while adding hundreds of dump trucks and other construction vehicles to our rural road network daily, will significantly interfere with and restrict access to and from our farm for customers, employees, and deliveries, and in many cases, will completely inhibit outbound shipments, with significant financial consequences and cost burdens to TSB, as described earlier.”

Response – This is a restatement of the same traffic impacts Mr. Clemence has stated previously. It has been addressed in my responses above.

Mr. Clemence again references the traffic-related impact for vendors and service providers.

Comment – “The information provided above only accounts for our farm’s outbound shipping and general operating logistics. Another significant impact of the inevitable interference from construction will be to our vendors and service providers. We have farm supplies consistently delivered to our farm as well as regularly scheduled service providers every week throughout the year. If a vendor refuses to continue deliveries or service due to unusual traffic delays in the area, it will cause TSB the additional financial and time burden of sending our own employees and vehicles as far as Salem, Oregon to pick up needed supplies for our operation. When service providers are unable to reach our location as regularly scheduled, they may not be able to reschedule and may discontinue the service altogether if construction prevents them from adhering to their operating schedule. This situation could have dire impacts on our operation and even the health and safety of our employees. For example, service vendors include companies like the one that performs our weekly portable restroom cleaning and sanitation service. Any disruption in this service puts the health and safety of our workers at risk.”

Response – Vendors delivering farm supplies to Tree Source will travel on the same roads in the Surrounding Lands as Tree Source when they deliver plant materials for cross-docking and shipment. This has been described and addressed in previous comments.

Mr. Clemence raises the issue of dust and airborne particulates from the added vehicle traffic associated with Water Bureau construction.

Comment – “Speaking of health risks, I did not see any significant mention of the impact of the additional noise, dust, diesel fumes or road destruction that will be caused by the construction traffic and re-routed commuter traffic. First, when dust coats the surface of trees and plant leaves, it blocks the little pores, depriving them of the sunlight they need to create the food to make the plant grow. It’s akin to a human not eating, and the plants will become frail and susceptible to disease. Our property, and our employees working on the property, are only 20’ from Bluff Road. Where is the study that shows the health effects of long-term exposure to construction levels of dust, noise and exhaust fumes from the increased traffic and construction trucks on the roads past our open fields and employees?”

Response – Noise, dust, and airborne particulates were covered extensively in my response to comments in the previous open record period. For these responses refer to Response to Noise Impacts, pages 7-8, Response to Dust Impacts, pages 5 – 7, and Response to Particulate Impacts, page 11 in Exhibit I.80, Farm Use Response in Open Record Period 1.

Mr. Clemence considers the impacted area to extend far beyond the area I have identified as the Surrounding Lands.

Comment – “Also, the report only refers to the immediate area around the proposed building site. At a minimum, the report should include the impact on the communities and public roads leading to and from this area and the most populated areas to include Portland, Gresham, Troutdale, and Sandy. After reading the report, I found myself asking ‘are these construction vehicles just going to suddenly appear on Dodge Park and Carpenter Lane?’ They must originate from somewhere.

They must be going somewhere. 98% of TSB employees commute in from other communities over 5 miles away. I would assume we are not the only company or farm in the area where employees commute from outside the area analyzed. Why does the report ignore these outlying affected areas?"

Response – The proper area for analysis was raised in the previous open record period and I have responded. It is reasonable that potential impacts are the greatest impacts are found closest to Project area. If impacts related to traffic and other factors are acceptable in the area near the Project, they will be no greater farther away. The factors and procedure for selecting the Surrounding Lands, see the Operations Report, Exhibit A.33 pages 19 – 22. For a response to this issue that was raised in the first open record period, see Farm Use Response in Open Record Period 1, Exhibit I.80, pages 73 – 74.

Mr. Clemence claims the burden and risks to local farmers exceed the community service the Water Bureau Project provides.

Comment – *"The undue financial burdens and safety and health risks to local farming operations, farmers, and their employees far outweigh the 'community service use' it supposes to provide."*

Response – My responses show that the burdens and risk assumed by Mr. Clemence are exaggerated. My analysis and that of Global Transportation Engineering show that farm operators, their employees, vendors, service providers, and outbound shippers can all use the roads in the Surrounding Lands with minimal delays or in some cases detours. There is no significant change in accepted farm practices or significant increase in the cost of accepted farm practices for Tree Source.

Farm Organization Comments

I.13 Written Testimony from Jeff Stone, Oregon Association of Nurseries

Mr. Stone states that agricultural groups are concerned that traffic impacts will clog roads and affect farm operations during and after construction that are not considered. Additionally, Mr. Stone is concerned about roadway danger to urban travelers and says the road impacts for farmers are also outside the adjacent area to the Project.

Comment – *"Approval of a nonfarm use requires findings that the project won't force a significant change in accepted farm practices, nor any significant increase in the cost of that practice. Agricultural groups are concerned about traffic impacts both during and after construction and assert that Portland and Multnomah County officials haven't fully considered these impacts. These materials, along with the hundreds of construction workers and their equipment, will clog our rural farming roads. This will move traffic onto those few other roads not directly impacted, which in turn will impact our operations in ways Multnomah County and the City of Portland have not considered."*

Comment – “Let’s not sugarcoat the impact that construction and adjusted traffic patterns will have on rural roads and operations. It is quite foolish of city planners to downplay the redirected traffic impact will have on agricultural roads. A six-year process will impact those who are not near the area in question as traffic flow will come into direct conflict with moving agricultural equipment and make movement of products more dangerous for urban travelers.

Multiple years of construction and the change to traffic patterns to avoid the work will create impacts on roads well outside of the adjacent area. For agriculture, it is imperative that an operation be able to move employees, equipment, and plant material from farm to farm.”

Response – First, regarding impacts on roads during operation of the filtration facility and pipelines, this has been comprehensively covered in the Globalwise Operations Report in Exhibit A.33. Traffic going to/from the filtration facility during its operations will not have a significant effect on roads in the Surrounding Lands. Pipelines move water underground and there is little maintenance or repair work that requires public road travel. Mr. Stone makes no additional comments about impacts from Project operations to support this allegation.

Second, regarding impacts on roads during construction, the Construction TIA addresses Level of Service (LOS) intersection performance during peak construction for 15 intersections in Exhibit A.230, the analysis of Transportation Demand Management in Exhibit H.3 – Attachment 3, and the updated analysis for a single access via Carpenter Lane in the amended transportation analysis in Exhibit I.86. LOS is met with Transportation Demand Management. The specific impacts on farm vehicle travel and outbound shipping are the subject of my Farm Traffic Report, Attachment 5 in Exhibit H.3. Impacts on farm vehicle traffic and farm product shipment are also addressed in Response to Traffic Impacts for Farm Travel and Response to Traffic Impacts for Product Shipments in Exhibit I.80, Farm Use Response in Open Record Period 1, pages 8 - 11.

The Water Bureau is planning for farmer accommodation with access to fields and facilities when in the work zone. Farmers have options to travel around or through work zones on the public roads. However, if they choose to take detours, in most cases they can take an alternate route. The Water Bureau is also providing frequent and updated communications to farmers and TripCheck of the road conditions.

Regarding road danger for urban travelers, the Water Bureau will require all contractors to receive comprehensive driver training. This was addressed in response to similar comments in Farm Use Response in Open Record Period 1, Exhibit I.80, page 17.

Regarding the appropriate study area for Surrounding Lands, refer to Farm Use Response in Open Record Period 1, Exhibit I.80 in response to Mr. James Johnson on pages 73-74.

Mr. Stone states there is little or no consideration of cumulative impacts on area agricultural operations.

Comment – “There appears to be little if any consideration of the cumulative impacts of the various development and operation characteristics proposed development on area agricultural operations.”

Response – In response to this comment, my analysis of the potential for cumulative impacts is explained in more detail in the separate memorandum I have provided in the second open record period.

Mr. Stone states nurseries are harmed by loss of land, and the interruption for both plant production and markets.

Comment – “.... the pipe from the treatment plant will take 5 acres out of production of a 35- acre farm.

Loss of the land could represent a significant loss of revenue, impacting overall viability. Markets and interruption of producing plants are hard to calculate and certainly customers are not going to wait for a treatment plant to be completed when these are traded sector products. The customer moves on to fill the order and economic harm occurs. It is anticipated that large treatment trucks will compete with transportation infrastructure at the loading docks as well as agricultural practices (dust, spraying, and buffers) will be curtailed.”

Response – Regarding the loss of five acres, this refers to the Ekstrom field where pipeline construction will occur. The statement that five acres will be lost is incorrect. The net loss in that field is 1.8 to 1.9 acres. This is explained in my response to farm comments in Farm Use Response in Open Record Period 1, Exhibit I.80 on page 41.

Furthermore, the total area is not 35 acres, and it is not a “farm.” It is a single tax parcel and is part of the total field or as I describe it a production unit. The entire continuous field is two tax parcels that are farmed together and totals 37.4 acres. Based on information Mr. Ekstrom gave me, the Ekstroms have a farm (Ekstrom and Schmidt Nursery) that is comprised of 11 or more fields with over 200 total acres.

In reference to the specific field with pipeline construction, 5 percent of it cannot be planted nursery crops after construction is complete and soil restoration is completed. Even without consideration of compensation for loss of production and loss of cropland to the permanent easement for the pipeline, this is not a significant increase in cost for the Ekstroms to continue their accepted farm practices at this field. Furthermore, this will not require that the Ekstroms significantly change any farm practices in this field.

While correcting the underlying facts here is important, none of it is relevant to the question because this area being used directly for the pipeline is not part of the Surrounding Lands for the land use impacts test.

Regarding Mr. Stone’s comment, “customers are not going to wait for a treatment plant to be completed ... to fill orders,” that makes the erroneous assumption that the nurseries in the Surrounding Lands will not be able to load and deliver plants in a timely manner. My analysis shows otherwise as previously explained.

Mr. Stone also comments about large treatment trucks blocking loading docks but does not reference any specific farmer. If it refers to R&H Nursery, I have addressed that concern directly in response

to previous comments. See page 39 of my response in Farm Use Response in Open Record Period 1, Exhibit I.80.

Mr. Stone states a “plethora” of members will be harmed with reference to u-pick operations and the burden of proof for minimum impacts on agricultural operations has not been met.

Comment – *“The OAN has heard from a plethora of members who will be harmed economically by the city. U-pick operations will see an impact by large equipment and activity in the area during critical sale cycles. We do not believe that the burden of proof by the city of minimal impact on agricultural operations and rural residents has been met.”*

Response – Mr. Stone offers a vague statement about a plethora of nursery members who believe they will have economic harm from the Water Bureau Project. In the next sentence he shifts to u-pick operations. I am not aware of any nurseries categorized as u-pick operations, since u-pick is a term that describes fruit and vegetable growers who sell fresh produce directly to customers who come to their farm. All of the nurseries that have commented are wholesale nurseries, and OAN does not represent U-pick fruit or vegetable farms. Furthermore, a peach orchard which is a large u-pick farm business in the area has not commented regarding any impact on them.

Mr. Stone includes maps (Exhibit I.13.a and Exhibit I.13.b) that show a large area of east Multnomah and Clackamas counties with licensed nursery owners. This larger area extends beyond the area defined as Surrounding Lands. Mr. Stone states that I have significantly understated the appropriate size of the Surrounding Lands for analysis.

Comment – *“A simple map can be found that show just licensed nursery owners in the impacted area (see OAN Map #1). This does not count, much to our dismay, agricultural lands that are leased or in production as an extension of the nursery licensed operators. To see the simple version, go here: [Portland_WaterTreatment.pdf](#).”*

Comment – *“OAN Map #2 takes this one step further, showing the actual footprint (land area) of lands utilized by the nursery and other agricultural operations in the area that would be impacted by the proposed development. Lands involving the nursery industry total 8,728 acres. OAN Map #2 shows the location of the roads used by the City’s consultant to conduct a traffic analysis.”*

Comment – *“The area in question is surrounded by rural residential and agriculture and the footprint of the surrounding area has been grotesquely minimized and the broader area should receive a farm impact test.”*

Response – The procedures and careful delineation of the Surrounding Lands I have used was described in the Operations Report, Exhibit A.33 on pages 20-24 and further explained in response to comments by James Johnson in Farm Use Response in Open Record Period 1, Exhibit I.80 on pages 73-74. OAN Maps #1 and #2 show a generally uniform and homogenous area of farmland throughout the large area of east Multnomah and Clackamas counties. Both inside and outside of the Surrounding Lands, the areas are closely related in terms of the potential for susceptibility to

impacts from the filtration facility or pipelines, such as potential based on the mixture of farm types and sizes and scope of activities. These maps are consistent with my understanding that the area, both inside and outside of the Surrounding lands, shares key characteristics and similarities, such as that: the topography, climate, and soils are homogenous throughout the areas; the same nursery crops predominate; nurseries range in size from small to large with some nursery operators traveling several miles to farm separate fields; farm headquarters are located in each; there is also a small amount of non-nursery farm use, such as hay, pasture, livestock and food crops; farms rely on groundwater wells for irrigation; and farms operate with a similar pattern of close proximity to dispersed residential properties and other community uses. The conclusion to be drawn is that there is great uniformity in the location of nurseries and other farmland in this area that extends beyond the boundary of the Surrounding Lands. These facts, along with the visualization provided in Map #1 and Map #2, show that the Surrounding Lands as defined and my Operations Report in Exhibit A.33, fully captures the potential for farm use impacts because potential impacts (both related to externalities and sensitivities of the proposed use) are more likely to occur for accepted farm practices on lands located closer to the filtration facility or the pipelines than farm practices at more distant locations.

Mr. Stone includes a map (Exhibit I.13.c) that shows what he believes to be the road segments analyzed by the transportation expert for the Water Bureau.

Comment – *“OAN Map #3 the location of the proposed pipelines and the location of a proposed emergency access road. These maps are much better indicators of the relationship between agricultural lands in the area and the elements of the proposed development that would adversely impact area agricultural operations.”*

Response – OAN Map #3 contains many errors. First, the inclusion of the emergency access road is irrelevant because the Water Bureau has dropped plans to request its use for access to the filtration facility during construction. Second, from my discussions with farmers in the Surrounding lands, it is clear there are many properties with inaccurately labeled crops and this includes nursery, berry, vegetable, hay, and pasture. Third, segments of several roads are erroneously displayed as travel routes for construction trips, apparently just because they are associated with the intersection that were studied. For example, the map shows a long section of Oxbow Parkway as a haul route which dead ends near the Sandy River in Oxbow Park apparently because the intersection of Hosner Road and Oxbow Drive is included in Exhibit A.23, the Construction TIA. Similarly, Lower Lusted Road is shown as a haul route that dead ends at the intersection of Lusted Road and Hudson Road perhaps because the intersection of Cottrell Road and Lusted Road was studied. These errors invalidate Map #3 for relating farm use to traffic analysis. Essentially, Map #3 just shows that the area has public roads.

Mr. Stone makes assumptions about the use of soil from the filtration facility site and its use for farming.

Comment – *“Environmental impacts*

It is our understanding that 1.8 million cubic yards of soil will be removed and assumed that any soil returned to the site will have a negligible impact. This is false. Native soil is different, and it is never the same. Two articles are submitted into the record that demonstrate this point:

<https://grist.org/energy/new-research-shows-sustained-damage-to-agricultural-land-near-pipelines/>

<https://access.onlinelibrary.wiley.com/doi/full/10.1002/aqg2.20312>

Response –*The area of the filtration facility site requiring excavation will remove approximately 18 inches of topsoil and stockpile at this property for reuse. Usage could include berms and landscaped areas around the filtration facility. If an area in the eastern part of the property is used for farming after construction, that soil will not be disturbed by excavation and remains native soil.*

The two articles referenced are the same ones referenced in Exhibit I.11 by Ekstrom & Schmidt. Dr. Mengel has responded to these comments in his separate memorandum also submitted during this second open record period.

Mr. Stone states that the siting of the filtration facility and pipelines will impact the water rights of irrigators in the Surrounding Lands.

Comment – *“This is a groundwater limited area designated by the Oregon Water Resources Commission (see attached OWRC document) and a number of water rights in the area will be impacted.”*

Response – *For over 100 years the Water Bureau has conveyed surface water sourced from the Bull Run Watershed in pipelines to customers in the Portland area. This will continue with this Project and no wells will be drilled to extract ground water other than temporary dewatering of shallow perched groundwater during construction. Approval of the Project will not affect the water rights of anyone in or out of the Sandy-Boring Ground Water Limited Area.*