United States Department of Agriculture
Animal and Plant Health Inspection Service
Agriculture Quarantine and Inspection (AQI) Program

AQI Fee Schedule Assessment and Alternatives

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Revised

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1. Introduction

The United States Department of Agriculture (USDA) Animal Plant Health and Inspection Service (APHIS) Agricultural Quarantine and Inspection Program (AQI) protects America's animal and plant resources from agricultural pests and diseases. To fund the program, AQI charges fees for inspection of international passengers and cargo conveyances. The current AQI fee structure establishes fees for commercial vessels, trucks, railroad cars, aircraft, and international air passengers. APHIS engaged Grant Thornton to conduct a comprehensive fee review to determine the full cost of AQI services, identify potential changes to the fee structure, and recommend new fees.

Section 2 of this document describes the criteria we used to identify options and develop the fee schedule alternatives. Several of the sections of this document address specific deliverables for the AQI fee review, as shown in the following table. The assessment of current AQI fee caps (Section 3) is presented before the alternatives because it was an important factor in developing the alternatives discussed in Section 5.

Deliverable	Document Section
Deliverable 6-3: Evaluate the current maximum charges (fee caps)	Section 3 – AQI Fee Caps
Deliverable 6-1: Make recommendations on potential restructuring of fee categories Deliverable 6-6: Identify any new potential areas for user fees	Section 4 – Approach to Developing Fee Schedule Alternatives Section 5 – Alternative Fee Schedules
Deliverable 6-2: Evaluate current user fee exemptions listed in the regulations	Section 6 – AQI Fee Exemptions
Deliverable 6-4: Evaluate how well the current user fee structure relates to risk-based, science-based services	Section 7 – Risk and Science-Based Services

Table 1-1

2. Criteria for Fee Schedule Revisions

We identified a number of requirements and criteria that were used to develop options for restructuring the AQI fee schedule.

2.1. Fee Setting Standards and Requirements

We used several authoritative sources relating to the AQI fee review requirements:

- **AQI fee authority:** We reviewed the statutory language for AQI's fee authority. This is an important source because it grants fee setting authority for the AQI program and includes several requirements for how the fees should be set. In particular, the AQI fee authority states that:
  - Passenger fees are for "international passengers", indicating fees can be charged for any international passenger, not just air passengers.
  - The fees should be commensurate with the costs with respect to the class of persons or entities paying the fees. This is intended to avoid cross-subsidization of AQI services.
  - The cost of AQI services with respect to passengers as a class should include the cost of related inspections of the aircraft or other vehicle.

  We also consulted with the USDA Office of General Counsel (OGC) to obtain their opinion on the permissibility of several options we considered as we developed the fee schedule alternatives.
- **OMB Circular A-25: *User Charges*:** This OMB circular serves as the fee setting standard for the federal government and provides guidance to agencies regarding issues such as inclusion of all appropriate costs (full cost) and policy considerations for establishing fees.
- **Federal Accounting Standards Advisory Board (FASAB) Statement No. 4: *Managerial Cost Accounting Concepts and Standards for the Federal Government*:** FASAB Statement No. 4 defines the concepts and requirements for managerial cost accounting in the federal government. In particular, it identifies several appropriate methodologies for managerial cost accounting (including activity based costing) and provides a more detailed definition of full cost.

2.2. Policy Considerations

In addition to the requirements identified above, we considered other criteria in assessing the desirability of specific fee options as well as the fee structure overall.

- **Distinct output or service:** Any item added to the fee schedule must be a clearly defined output or service. This is important for determining the unit cost (i.e., it can be counted) and knowing when the fee would be charged (specific service provided to a fee payer).
- **Beneficiary pays:** The beneficiary pays criterion is fundamental to fee setting. The basic principle is that charging a fee is appropriate for a service (or privilege) that provides special benefits to an identifiable recipient beyond those that accrue to the general public. We looked for cases where there is currently no fee for specific services and where a particular fee payer causes additional cost (e.g., fumigation treatments) compared to the other fee payers.

- **Simplicity:** Fees should be constructed in as simple a manner as possible to limit the effort and cost required to implement and administer the fees. This benefits the government and fee payers.
- **Logistical/administrative impact:** We considered the logistical and administrative implications of specific fee options, considering the impact on the government and the fee payers. This included any new infrastructure or process requirements (and associated costs) or delays crossing the border that would result from establishing a fee. We also considered the materiality of the revenue that would be collected relative to the requirements for establishing a new process or infrastructure to collect the fee. The costs associated with any services excluded from the fee schedule are not recovered through cross-subsidization with other fees and are assumed to be paid by appropriations.
- **Consistency with CBP structure:** Where appropriate, we wanted to make the AQI fee structure consistent with the current relevant CBP fees. This is important because CBP, as a partner in the AQI program, could have responsibilities related to collecting some of the new fees. In addition, keeping the AQI and CBP fee structures and processes comparable makes the AQI fees clearer to the fee payers.
- **Economic impact:** We used the results of the economic analysis that was conducted as part of the AQI fee review. In doing so, we considered the impact to specific industry sectors (e.g., truck cargo, maritime cargo, etc.) as well as to the United States economy overall. The methodology used to estimate the economic impact produces a "reasonable worst case scenario" in terms of changes to employment and output. In that respect, it is a more conservative approach in that it overstates the likely impact from the changes. Developing a more "reasonable" basis would have required a much more robust and detailed analysis, including looking at the labor market within individual sectors of the economy. An overview of the economic impact estimate is provided in Section 4.
- **Stakeholder input:** We held a meeting with AQI external stakeholders (primarily industry associations) to obtain feedback on the options being considered, and also received additional comments after the meeting.

3. AQI Fee Caps

This section addresses Deliverable 6-3 of the statement of work. This task involved identifying and assessing the impact of the current AQI fee caps, which limit the number of times a specific conveyance must pay the fee in a given year. The intent of the caps is to minimize the economic impact on commerce (transporters and consumers of imported goods), and provide an incentive for compliance (e.g., truck transponders, as discussed later). From the AQI program funding perspective, the fee caps reduce the amount of revenue collected, although costs are still incurred to perform the inspections. As a result, a portion of AQI costs are currently funded through appropriations rather than having the AQI fees recover the full cost of the program.

The current AQI fee caps are:

- Trucks = 20 crossings (with transponder)
- Maritime Vessels = 15 arrivals
- Railcars = 20 crossings

To take advantage of the cap, trucks must purchase a transponder, and the current transponder fee is 20 times the fee charged for an individual truck crossing. Maritime vessels pay the fee each time they arrive at port for the first 15 arrivals. Fees for railcars are paid on a quarterly basis, up to 20 crossings per year for a given railcar. There is no cap associated with air cargo. These caps were set when the AQI fees were initially established and are the same as the caps used by CBP. While the intent of the caps is to limit the cost of imports so as not to discourage commerce, we were not able to find any information indicating why the caps are set at these particular levels. It is important to note that the caps prevent recovery of the full cost of the AQI program and, as imports increase, the gap between cost and revenue will likely increase if the caps stay at the current level.

To assess the impact of the current fee caps, we used FY2010 baseline cost and revenue information to estimate the extent of revenue lost due to the caps. For each fee item that has a cap, we have shown the total cost of providing that service and compared it to the amount of revenue collected to show the overall gain or loss for each fee service. As shown in Table 3-1 below, the AQI program lost money on vessels and trucks but made a small amount of money on railcars.

Fee Service	FY2010 Total Cost	FY2010 Revenue	FY2010 Gain (Loss) *
Commercial Vessel	$97,451,079	$25,510,420	($71,940,659)
Commercial Truck	$71,520,384	$13,864,727	($57,655,657)
Commercial Rail	$4,738,663	$7,917,885	$3,179,222
* Gain or (Loss) = Revenue - Total Cost			

Table 3-1

To assess the impact of the caps, we separated gains/losses that are the result of 1) the fee being higher or lower than the unit cost; and 2) the lost revenue due to the caps. The table below provides information gathered and calculated to assess the impact of the caps.

Fee Service	FY2010 Total Cost	Volume	Unit Cost *	Current Fee	Revenue Gain (Loss) Due to Unit Cost **	Revenue Loss Due to Caps ***
Commercial Vessel	$97,451,079	117,262	$831.05	$494.00	($39,523,157)	($32,417,502)
Commercial Truck	$71,520,384	10,130,010	$7.06	$5.25	($18,335,318)	($39,320,339)
Commercial Rail	$4,738,663	2,718,375	$1.74	$7.75	$16,337,434	($13,158,212)
Total						($84,896,052)

* Unit Cost = Total Cost / Volume

** This is the gain (loss) due to the difference between the current fee and the unit cost. The calculation is: Revenue Gain (Loss) Due to Unit Cost = (Current Fee - Unit Cost) x Volume

*** The revenue loss due to caps is assumed to be the difference between the overall gain (loss) and the gain (loss) due to the difference between the current fee and unit cost. The calculation is: Revenue Loss Due to Caps = Gain (Loss) - Revenue Gain (Loss) Due to Unit Cost

Table 3-2

As shown in Table 3-2, the overall revenue impact of the AQI fee caps is approximately $84.9 million. The issues related to each fee are:

- **Commercial Vessel:** As shown in Table 3-1, the AQI program lost approximately $71.9 million on commercial vessel fees. This is due in part to the fact that the current fee does not cover the actual unit cost of an inspection, which accounts for approximately $39.5 million of the loss. The remainder, approximately $32.4 million, is due to the cap on vessels.
- **Commercial Truck:** As shown in Table 3-1, commercial trucks had an overall loss of approximately $57.7 million. Of this amount, approximately $18.3 million was due to the fee being less than the unit cost and $39.3 million due to the caps. This is consistent with our calculation showing that trucks with transponders crossed an average of 106 times, significantly more than the transponder fee of 20 times the individual truck fee. The trucks must still be processed and inspected but no fee is collected beyond the amount of the transponder.
- **Commercial Railcar:** The AQI program made nearly $3.2 million on railcars in FY2010 (see Table 3-1) due to the fact that the current fee significantly exceeds the unit cost. However, without a cap, the AQI program would have made approximately $16.3 million from railcars (see Table 3-2), compared to an actual gain of $3 million. The difference of approximately $13.2 million shows the impact of the railcar cap.

CBP currently bears the cost related to the caps and covers these costs with its regular appropriation (beyond the amount of fee revenue it receives). Section 4 (Alternative Fee Schedules) provides options for removing or increasing the caps for commercial vessels and railcars. However, due to the nature of the truck transponders, we identified a different approach that would recover only a portion of the cost for inspecting trucks. This was based on a number of factors, including the incentive to have trucks continue to use transponders because they decrease the amount of time for processing a truck.

4. Approach to Developing Fee Schedule Alternatives

Our approach is to provide several "stand alone" fee schedule options rather than a "menu" approach of selecting individual items. Each alternative is based on the criteria described earlier but with somewhat different objectives, as described under each alternative. However, there is nothing that would preclude APHIS from taking an alternative and making minor adjustments for the final fee schedule. Also, options considered but not included in the alternatives are described at the end of Section 5.

All of the alternatives involve increasing or removing the caps on vessels and railcars, but with a differing approach for truck transponders. This is discussed in more detail under each alternative. We assumed that APHIS and CBP will face budget challenges over the next several years so revising or removing the caps to cover AQI costs is important for the long-run viability of the program. A more detailed assessment of the impact of the caps is provided in Section 3 of this document.

For each of the alternatives below, we present the following:

- Description and rationale
- New fees and projected revenue
- Pros and cons
- APHIS/CBP revenue allocation

The fee and revenue tables under each alternative provide the fees for each year (FY2013 – FY2015) along with projected fee-paying volume and revenue. For some services the amount of the fee changes over the three year period covered by the projections. Some fees decrease in FY2014 and/or FY2015 because the projected rate of increase for workload is higher than project increase in cost, which lowers the unit cost and the fee when rounding is applied. Conversely, some fees increase in FY2014 and/or FY2015 because the costs increase at a higher rate than the volumes. Once an alternative is chosen for the revised AQI fee schedule, APHIS will need to determine how to address this issue. Potential solutions include picking the highest amount across the three years or calculating the average across three years.

Reserve

The tables also show the estimated reserve that will be accumulated at the end of each year, as well as the number of days the reserve represents. The reserve is built up by rounding up from the unit cost, as follows:

- All items with a unit cost less than $10 were rounded up to the next $1.
- All items with a unit cost greater than $200 were rounded up to the next $25.

This approach provides a proportionate rounding for all of the fee items. As will be shown under the alternatives below, there are no fee items that fall between $10 and $200.

The number of days in the reserve was then calculated by dividing the projected reserve by the total cost of the related services and multiplying by 365. This estimates the number of days in reserve relative to costs covered by fee revenue and excludes costs covered by appropriations. FY2014 and FY2015 are not cumulative from previous years and show only the projected reserve (amount and number of days) for each year.

APHIS/CBP Revenue Allocation

The APHIS/CBP revenue allocation shown for each alternative is based on the associated costs for each agency. The allocation assumes that APHIS AQI activities must be fully funded by fee revenues, as has been done in the past, and the remaining revenue is allocated to CBP.

The APHIS/CBP revenue allocation table also includes an estimate of the imputed costs paid by other agencies (Office of Personnel Management and Department of Labor on behalf of APHIS and CBP) related to AQI fee services. These costs were included in the fee review to capture the full cost to the government, as required by OMB Circular A-25. However, because these costs are not paid by APHIS or CBP but are included in the fees, they must be deposited to Treasury rather than being retained in the AQI fund. As discussed under each alternative, some CBP AQI costs are assumed to be funded through CBP appropriation (e.g., costs not fully recovered by truck transponder fee). In this case, the amount to be remitted to Treasury by CBP was reduced to reflect that these costs would be paid by CBP's appropriation rather than AQI fees.

4.1. AQI Cost Model Methodology

The fee amounts and options discussed in this section are based on the cost modeling performed for the AQI fee review. The cost modeling effort included developing baseline cost information using FY2010 financial and workload data. The activity-based costing (ABC) methodology was used to determine the cost of AQI activities and outputs in support of the fee review. ABC supports the philosophy of full cost, complies with the Office of Management and Budget (OMB), the Government Accountability Office (GAO), and other regulatory guidance regarding full cost, and provides the functional elements and data for cost and business process analysis.

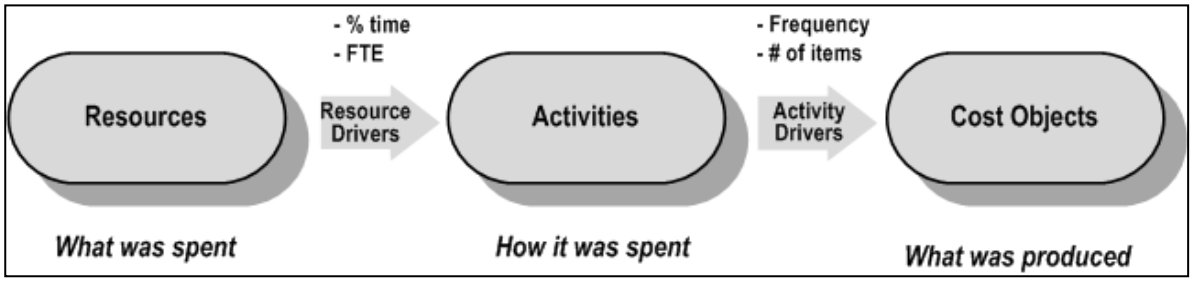

Figure 4-1

ABC is a two-step methodology to assign an organization's costs to its work activities and related outputs, as described below:

- Resources are an organization's costs, such as salaries and benefits, rent, equipment, etc. Resources are assigned to activities, which describe the work that the people in an organization perform.
- In the first step, resource costs are assigned to activities using resource drivers, which typically represent a cause-and-effect relationship to establish "how much" of a resource is consumed by the activity. For example, if an organization spends 10% of its effort performing a particular activity, that activity will receive 10% of certain costs (e.g., salary and benefits) for which level of effort is a good indicator of resources consumed.
- The second step assigns these activity costs to the outputs produced in performing the activities. This cost assignment is done using activity drivers, again based on a cause-and-effect relationship. For example, if an activity is performed for more than one type of output, the cost of the activity is assigned to the outputs based on the workload data (volume) associated with each output.

The AQI cost model design is based on the ABC methodology but incorporates several more "layers" to provide more transparent cost assignment and reporting. This included identifying and costing outputs at a more detailed level to provide flexibility for restructuring the AQI fee schedule. In addition, expected future costs and workload were added to the baseline costs to estimate the total costs and workload for the period the new fees will be in place. The cost model, including future period costs and workload projections, is documented in detail in a separate deliverable.

4.2. Economic Analysis

As previously mentioned, the AQI fee review included an economic analysis to estimate the economic impact of potential new fees. In conducting the AQI fee review, we identified a number of options for changing the fee schedule structure and estimated the economic impact of various combinations of these options.

Table 4-1 below shows the range of estimated short run and long run direct impacts for output and employment (number of jobs) from the economic analysis.

Direct Impact	Least Impact	Most Impact
Short Run		
Output ($ in millions)	-$95	-$187
Employment	-972	-1,845
Long Run		
Output ($ in millions)	-$43	-$111
Employment	-468	-1,111

Table 4-1

A few things to note:

- The estimated direct economic impact is due only to the incremental change to the fees, not the fees in total.
- The estimated impact of all of the scenarios is considered minor relative to the U.S. economy overall and to the various industry sectors.
- The estimated impact across the various scenarios did not vary significantly. As a result, the economic impact analysis on its own did not point to including or excluding specific options. However, potential changes to the fee caps are different for Alternative 3 to show the tradeoff between AQI revenue and the estimated economic impact. The least impact numbers shown in Table 4-1 above are associated with Alternative 3.
- While we have estimated the economic impact of implementing new fees, it should be noted that the AQI program is not a "new cost" and the program's cost is already being paid through a combination of user fees and appropriated funds. As such, decisions on the fee schedule are more a matter of determining the proportion of funding through user fees and appropriations.

The economic impact analysis and methodology are presented in more detail in a separate deliverable.

4.3. Changes to Current Fees

The AQI fee review resulted in several significant changes to the current fees, regardless of the alternative involved:

- The air passenger fee will decrease from $5.00 to $4.00. As required by the AQI fee authority legislation, the revised air passenger fee includes the cost of inspecting passenger aircraft.
- The air cargo fee will approximately triple, although the amount of the fee varies depending on the alternative. The fee will be $200 - $225, depending on the scenario, compared to the current fee of $70.75. This fee now applies only to cargo aircraft because the cost of inspecting passenger aircraft is included in the air passenger fee.
- The railcar fee decreases significantly, from $7.75 to $2.00. However, this represents a relatively small amount of AQI fee revenue.
- The maritime vessel fee will be $800 - $850, depending on the alternative, which represents an increase of approximately 60% - 70%. As with air cargo, this fee will only apply to commercial cargo vessels because the cost of inspecting cruise ships is included in the new sea passenger fee.

4.4. Current AQI Fee Schedule

Table 4-2 below shows the current AQI fee schedule, which serves as the starting point for developing the alternative fee schedules. Table 4-2 below also shows the FY2013 projected revenue for the current fee schedule but with fees updated based on the fee review. The air passenger fee reflects the inclusion of costs related to inspecting passenger aircraft.

Future workload volumes were estimated using several sources that provide workload growth rates for each AQI service. The sources and growth rates used are provided in a separate cost model documentation deliverable. In addition, the volume and revenue numbers in Table 4-2 assume the fee caps remain at their current level, i.e., the volume indicates the number that will pay the fee, not the total workload. The impact of the caps on revenue is based on the analysis of fee caps presented in Section 3.

Current Fee Schedule - FY2013			
Service	**Fee**	**Volume**	**Revenue**
Air Passenger	$4.00	88,246,319	$352,985,276
Commercial Air (Cargo only)	$225.00	819,000	$184,275,000
Commercial Maritime Vessel *	$875.00	53,767	$47,046,125
Commercial Truck	$7.00	1,069,456	$7,486,192
Commercial Truck Transponder	$140.00	87,302	$12,222,280
Railcar *	$2.00	1,206,773	$2,413,546
Total			**$606,428,419**
* For the current AQI caps, commercial maritime vessels pay the AQI fee for the first 15 arrivals and railcars pay the AQI fee for the first 20 crossings. Based on the estimated impact of caps, the revenue projection for the current fee schedule assumes the maritime vessel fee is paid for only 38% of vessel arrivals and the railcar fee is paid for only 44% of railcar crossings. The maritime vessel and railcar volumes were adjusted to reflect the estimated fee paying volume.			

Table 4-2

5. AQI Fee Schedule Alternatives

This section presents a detailed description of three separate AQI fee schedule alternatives. For each alternative we present:

- Description and Rationale
- Fees and Projected Revenue
- Pros and Cons
- APHIS/CBP Revenue Allocation

In addition, at the end of this section we present several options that were considered for the alternatives but ultimately were not included.

The workload projections used to estimate revenue for the fee schedule alternatives assume the growth rates shown below. The sources used for these projected growth rates are described in the cost model documentation.

Workload Type	Annual % Increase
Air Passengers	4.90%
Cruise Vessel Passengers	3.67%
Commercial Aircraft	7.60%
Commercial Vessels	5.32%
Trucks	5.32%
Railcars	5.32%
Commodity Import Permits	5.32%
Pest Import Permits	0%
Pest Interstate Transfer	0%
Treatments	5.32%

Table 4-3

5.1. Alternative 1

Description and Rationale

Alternative 1 is similar to the current fee schedule but with a few changes. Following is the description and rationale for each change:

- **Sea Passengers:** The AQI fee authority allows fees for all international passengers. In addition, there is already a CBP fee for cruise vessel passengers, so this does not require any new infrastructure or processes from the industry's perspective. We assume the collection process would be similar to the air passenger fee. Also, as directed in the AQI fee authority, the sea passenger fee covers the cost of inspecting cruise vessels.
- **Vessel and Railcar Caps:** We removed the caps on maritime vessels and railcars to recover the full cost of AQI services related to these conveyances. This will not require any new processes – the

vessels will pay each time they arrive at port (rather than limiting it to the first 15 arrivals) and the railcar fees can still be paid on a quarterly basis, but the fee will be paid for all crossings rather than stopping at 20.

- **Truck Transponders:** We initially considered basing the transponder fee on the average number of annual crossings for trucks with transponders (estimated to be 106). However, this would have resulted in truck revenue increasing approximately 6 times compared to FY2010, and we considered this to be too high for a single increase. In addition, this would likely cause some of the trucks to stop using transponders because they do not expect to cross that many times. According to an estimate from CBP, trucks with transponders save at least 10 minutes when crossing because they don't have to pay the fee, and this benefits both trucking firms and the government by limiting the length of lines at the border crossing. Consequently, we recommend there should be some incentive for trucks to continue to use transponders. While we were able to determine the average number of crossings for trucks with transponders, there was no data available to determine the distribution around the average. Consequently, we could not determine how many trucks might stop using the transponders at different fee levels (40 times, 80 times, etc.). Therefore, for Alternative 1 we propose setting the transponder price at 40 times the individual truck fee. We consider this a conservative approach with a balance between providing additional revenue for the AQI program but keeping the transponder fee relatively low so as not to discourage the use of transponders. In the short term, this allows AQI to see how many trucks will discontinue the use of transponders and conduct additional analysis. For the long term, AQI should look into possible alternatives, including the feasibility of using a toll-based transponder so trucks pay each time they cross while still retaining the time savings from the current transponders.
- **Permits and Treatments:** For Alternative 1, the cost of issuing commodity and pest permits and conducting/monitoring treatments is included in the cargo conveyance fees.

Truck Transponder Sensitivity Analysis

We also conducted a sensitivity analysis to give an indication how much revenue would change based on various changes in the number of transponders purchased. As discussed above, we were able to calculate the average number of crossings for trucks with transponders. However, there was no data available on the distribution around the average, i.e., the proportion of trucks above and below the average. This makes it difficult to estimate how many trucks would stop using transponders with a given increase in the transponder fee. However, to help provide some indication of the potential results, we performed a sensitivity analysis related to the number of trucks that might forego the use of transponders (see Table 5-1). While this results in reduced revenue from the transponder fee, trucks no longer using transponders would pay for each crossing so revenue from the individual truck fee would increase. This analysis assumes that trucks that stop using transponders would cross an average of 20 times.

	Baseline	10% Reduction	20% Reduction	50% Reduction
Number of Transponders	87,302	78,572	69,842	43,651
Number of Individual Truck Fees	894,852	1,069,456	1,244,060	1,767,872
Transponder Revenue	$24,444,560	$22,000,104	$19,555,648	$12,222,280
Truck Fee Revenue	$6,263,964	$7,486,192	$8,708,420	$12,375,104
Total Revenue	$30,708,524	$29,486,296	$28,264,068	$24,597,384

Table 5-1

The sensitivity analysis shows an overall decrease with the shift from transponder revenue to individual truck revenue. The loss in revenue due to the decrease in transponders is offset to a large degree by the increase in revenue from individual crossings.

Fees and Projected Revenue

The tables below present the fees along with the projected volume, revenue and reserve for each year.

Alternative 1 - FY2013			
Service	**Fee**	**Volume**	**Revenue**
Air Passenger	$4.00	88,246,319	$352,985,276
Sea Passenger	**$2.00**	**13,734,718**	**$27,469,436**
Commercial Air (Cargo only)	$225.00	819,000	$184,275,000
Commercial Maritime Vessel (Cargo Only)	$875.00	122,197	$106,922,375
Commercial Truck	$7.00	1,069,456	$7,486,192
Commercial Truck Transponder	$280.00	78,572	$22,000,160
Railcar	$2.00	3,175,718	$6,351,436
Total			**$707,489,875**
Reserve:			
Amount			$47,624,616
Number of Days			26

Table 5-2

Alternative 1 - FY2014			
Service	**Fee**	**Volume**	**Revenue**
Air Passenger	$4.00	92,570,389	$370,281,556
Sea Passenger	**$2.00**	**14,238,783**	**$28,477,566**
Commercial Air (Cargo only)	$225.00	881,244	$198,279,900
Commercial Maritime Vessel (Cargo Only)	$850.00	128,698	$109,393,300
Commercial Truck	$7.00	1,126,351	$7,884,457
Commercial Truck Transponder	$280.00	78,572	$22,000,160
Railcar	$2.00	3,344,667	$6,689,334
Total			**$743,006,273**
Reserve:			
Amount			$63,317,086
Number of Days			34

Table 5-3

Alternative 1 - FY2015			
Service	**Fee**	**Volume**	**Revenue**
Air Passenger	$4.00	97,106,337	$388,425,348
Sea Passenger	**$2.00**	**14,761,346**	**$29,522,692**
Commercial Air (Cargo only)	$225.00	948,218	$213,349,050
Commercial Maritime Vessel (Cargo Only)	$850.00	135,544	$115,212,400
Commercial Truck	$7.00	1,186,273	$8,303,911
Commercial Truck Transponder	$280.00	78,572	$22,000,160
Railcar	$2.00	3,522,602	$7,045,204
Total			**$783,858,765**
Reserve:			
Amount			$83,660,897
Number of Days			44

Table 5-4

Pros and Cons

Following are the pros and cons we identified for Alternative 1.

Pro	Con
• Maintains the simplicity of the current fee schedule, so there would be little additional cost to implement it. • Recovers the cost of sea passengers. • Recovers all costs associated with maritime vessels and railcars. • Increasing the truck transponder fee provides additional revenue but the limited increase in the transponder fee should maintain an incentive for most trucks to continue using transponders. • It also provides the opportunity to better understand how many trucks will discontinue the use of transponders.	• Truck transponder fee does not recover all costs related to trucks with transponders. • Truck transponder fee could be viewed as a cap, although that is not the intent. • Fees do not recover costs for other passenger classes (bus and rail). These costs would be covered by CBP's appropriation, as currently done.

Table 5-5

APHIS/CBP Revenue Allocation

The following table provides the Alternative 1 APHIS/CBP allocation for FY2013 – FY2015. The allocation also shows the portion related to imputed costs as previously discussed.

Alternative 1 APHIS/CBP Revenue Allocation			
	APHIS	**CBP**	**Total**
FY2013			
Retain in AQI Fund	$186,195,280	$492,645,257	$678,840,537
Remit to Treasury	$9,684,617	$18,964,721	$28,649,338
Total	**$195,879,897**	**$511,609,978**	**$707,489,875**
FY2014			
Retain in AQI Fund	$191,540,662	$521,832,809	$713,373,471
Remit to Treasury	$10,023,360	$19,609,442	$29,632,802
Total	**$201,564,021**	**$541,442,252**	**$743,006,273**
FY2015			
Retain in AQI Fund	$197,056,774	$556,151,027	$753,207,800
Remit to Treasury	$10,373,955	$20,277,009	$30,650,965
Total	**$207,430,729**	**$576,428,036**	**$783,858,765**

Table 5-6

5.2. Alternative 2

Description and Rationale

Alternative 2 builds on Alternative 1 by adding three additional fees. Following is more information regarding these changes.

- **Commodity Import Permits:** Commodity permits represent a distinct AQI output/service in that importers must obtain a permit before they can bring agricultural goods into the United States. In addition, we were told by APHIS subject matter experts that importers will sometimes obtain numerous import permits but not use all of them. The fee should help control the demand for permits so they are no longer considered a free good – this is one of the benefits of fee setting in general. The commodity import permit fee includes the cost of issuing commodity transit permits so there is no additional charge/fee for commodity transit permits. The cost of issuing commodity import permits and commodity transit permits is currently included in the conveyance inspection fees.
- **Pest Import Permits:** The rationale for pest permits is similar to commodity permits. However, the cost and nature of pest permits is different so it is appropriate to have it as a separate fee. In

addition, pest permits are acquired by a different group of stakeholders (academia and research institutions) so the cost is born by them. The fee includes the cost of pest transfer permits so there is no additional charge/fee for pest transfer permits.

- **Conducting and Monitoring Treatments:** We included a separate fee for conducting and monitoring treatments because this represents an additional cost that should be paid by the appropriate fee payers, particularly for commodities that require treatment as a condition of entry. In addition, by making this cost more visible, it might provide some incentive for importers to try to influence or stop doing business with growers that have a consistent problem with goods that require treatment.

Fees and Projected Revenue

The tables below present the fees along with the projected volume, revenue and reserve for each year.

Alternative 2 - FY2013			
Service	**Fee**	**Volume**	**Revenue**
Air Passenger	$4.00	88,246,319	$352,985,276
Sea Passenger	$2.00	13,734,718	$27,469,436
Commercial Air (Cargo only)	$200.00	819,000	$163,800,000
Commercial Maritime Vessel (Cargo Only)	$800.00	122,197	$97,757,600
Commercial Truck	$7.00	1,069,456	$7,486,192
Commercial Truck Transponder	$280.00	78,572	$22,000,160
Railcar	$2.00	3,175,718	$6,351,436
Commodity Permits	**$1,250.00**	**9,346**	**$11,682,500**
Pest Permits	**$2,050.00**	**2,094**	**$4,292,700**
Treatments	**$575.00**	**28,723**	**$16,515,725**
Total			**$710,341,025**
Reserve:			
Amount			$49,150,062
Number of Days			27

Table 5-7

Alternative 2 - FY2014			
Service	**Fee**	**Volume**	**Revenue**
Air Passenger	$4.00	92,570,388	$370,281,552
Sea Passenger	$2.00	14,238,782	$28,477,564
Commercial Air (Cargo only)	$200.00	881,244	$176,248,800
Commercial Maritime Vessel (Cargo Only)	$775.00	128,698	$99,740,950
Commercial Truck	$7.00	1,126,351	$7,884,457
Commercial Truck Transponder	$280.00	78,572	$22,000,160
Railcar	$2.00	3,344,666	$6,689,332
Commodity Permits	**$1,225.00**	**9,843**	**$12,057,675**
Pest Permits	**$2,125.00**	**2,094**	**$4,449,750**
Treatments	**$575.00**	**30,283**	**$17,412,725**
Total			**$745,242,965**
Reserve:			
Amount			$64,159,826
Number of Days			34

Table 5-8

Alternative 2 - FY2015			
Service	**Fee**	**Volume**	**Revenue**
Air Passenger	$4.00	97,106,337	$388,425,348
Sea Passenger	$2.00	14,761,346	$29,522,692
Commercial Air (Cargo only)	$200.00	948,218	$189,643,600
Commercial Maritime Vessel (Cargo Only)	$800.00	135,544	$108,435,200
Commercial Truck	$7.00	1,186,273	$8,303,911
Commercial Truck Transponder	$280.00	78,572	$22,000,160
Railcar	$2.00	3,522,602	$7,045,204
Commodity Permits	**$1,200.00**	**10,367**	**$12,440,400**
Pest Permits	**$2,175.00**	**2,094**	**$4,554,450**
Treatments	**$550.00**	**31,927**	**$17,559,850**
Total			**$787,930,815**
Reserve:			
Amount			$86,269,704
Number of Days			45

Table 5-9

Pros and Cons

Following are the pros and cons we identified for Alternative 2.

Pro	Con
• Additional costs are paid by the appropriate fee payers for permits and treatments. • It is still a relatively simple fee schedule, so there should not be a significant cost to implement it.	• Treatment fee would be a significant cost increase for importers/brokers because they already pay for the cost of treatments conducted by a third party (typically $800 - $1,000).

Table 5-10

APHIS/CBP Revenue Allocation

The following table provides the Alternative 2 APHIS/CBP allocation for FY2013 – FY2015. The allocation also shows the portion related to imputed costs as previously discussed.

Alternative 2 APHIS/CBP Revenue Allocation			
	APHIS	**CBP**	**Total**
FY2013			
Retain in AQI Fund	$186,195,280	$495,398,733	$681,594,013
Remit to Treasury	$9,684,617	$19,062,395	$28,747,012
Total	**$195,879,897**	**$514,461,128**	**$710,341,025**
FY2014			
Retain in AQI Fund	$191,540,662	$523,969,118	$715,509,780
Remit to Treasury	$10,023,360	$19,709,826	$29,733,185
Total	**$201,564,021**	**$543,678,944**	**$745,242,965**
FY2015			
Retain in AQI Fund	$197,056,774	$560,119,897	$757,176,670
Remit to Treasury	$10,373,955	$20,380,189	$30,754,145
Total	**$207,430,729**	**$580,500,086**	**$787,930,815**

Table 5-11

5.3. Alternative 3

Description and Rationale

Alternative 3 has the same structure/services as Alternative 2, but the primary objective of Alternative 3 is to limit the amount of increases for certain items to reduce the economic impact.

- **Caps:** The vessel cap is increased to 30 and the railcar cap is increased to 40 instead of the caps being completely removed. However, the fee for truck transponders stays the same since the transponder fee increase was already limited due to the other issues related to the transponders. The increase to the vessel and railcar caps could be a first step in phasing in the removal of the caps. See below for our analysis and estimates for the impact of increasing these caps.
- **Treatments:** The fee for conducting and monitoring treatments is reduced to address concerns regarding a significant increase in the cost of treatments. Because importers already pay the cost of treatment delivered by a third party, limiting the amount of the treatment fee would limit the total cost of a treatment. The portion of treatment-related costs not covered by the treatment fee is included in the cargo conveyance fees.

Vessel and Railcar Cap Analysis

While we were able to estimate the average number of crossings of trucks that use transponders, we did not have comparable data for vessels and railcars because they do not use transponders. Instead, we developed a sensitivity analysis based on our estimate of the proportion of vessels and railcars that do not pay the fee.

The tables below provide a sensitivity analysis of possible changes in non-fee paying conveyances due to the cap increases. Using FY2010 cost and revenue data, we were able to identify gains and losses for each conveyance mode, and separate gains/losses due to 1) the fee being higher or lower than the cost; and 2) the impact of the caps (presented in more detail in Section 2). These calculations are shown in Table 5-12 below.

Conveyance Mode	Total Volume	Loss Due to Caps	Number of Non-Fee Paying	Percentage of Non-Fee Paying
Vessel	117,262	($32,417,502)	65,829	56%
Railcar	2,718,375	($13,158,212)	1,697,220	62%

Table 5-12

The number of non-fee paying vessels/railcars was estimated by dividing the loss due to caps by the associated fee. We then calculated the percentage of vessels and railcars that do not pay a fee.

Table 5-13 presents the sensitivity analysis of the change in the caps. As shown in Table 5-12 above, the non-fee paying rates for vessels and railcars were approximately 60%, so we developed three scenarios showing differing percentages of non-fee paying volume (see Table 5-13). The revenue estimate for this alternative assumes a proportionate relationship. Thus, 30% of conveyances would not pay the fee because the caps are doubling and thus non-fee paying volume would be reduced by half. As stated earlier, we did not have any data to calculate an average or distribution which limited our analysis.

	Non-Fee Paying Percentage					
	15%		30%		45%	
Mode	Volume	Revenue	Volume	Revenue	Volume	Revenue
Vessel	103,867	$85,690,646	85,538	$70,568,768	67,208	$55,446,889
Railcar	2,699,360	$5,398,721	2,223,003	$4,446,005	1,746,645	$3,493,290

Table 5-13

Fees and Projected Revenue

The tables below present the fees along with the projected volume, revenue and reserve for each year.

Alternative 3 - FY2013			
Service	Fee	Volume	Revenue
Air Passenger	$4.00	88,246,319	$352,985,276
Sea Passenger	$2.00	13,734,718	$27,469,436
Commercial Air (Cargo only)	$225.00	819,000	$184,275,000
Commercial Maritime Vessel (Cargo Only)	$825.00	85,538	$70,568,850
Commercial Truck	$7.00	1,069,456	$7,486,192
Commercial Truck Transponder	$280.00	78,572	$22,000,160
Railcar	$2.00	2,223,003	$4,446,006
Commodity Permits	$1,250.00	9,346	$11,682,500
Pest Permits	$2,050.00	2,094	$4,292,700
Treatments	$300.00	28,723	$8,616,900
Total			**$693,823,020**
Reserve:			
Amount			$63,654,718
Number of Days			35

Table 5-14

Alternative 3 - FY2014			
Service	**Fee**	**Volume**	**Revenue**
Air Passenger	$4.00	92,570,388	$370,281,552
Sea Passenger	$2.00	14,238,782	$28,477,564
Commercial Air (Cargo only)	$200.00	881,244	$176,248,800
Commercial Maritime Vessel (Cargo Only)	$800.00	90,089	$72,071,200
Commercial Truck	$7.00	1,126,351	$7,884,457
Commercial Truck Transponder	$280.00	78,572	$22,000,160
Railcar	$2.00	2,341,266	$4,682,532
Commodity Permits	$1,225.00	9,843	$12,057,675
Pest Permits	$2,125.00	2,094	$4,449,750
Treatments	$300.00	30,283	$9,084,900
Total			**$707,238,590**
Reserve:			
Amount			$58,162,610
Number of Days			31

Table 5-15

Alternative 3 - FY2015			
Service	**Fee**	**Volume**	**Revenue**
Air Passenger	$4.00	97,106,337	$388,425,348
Sea Passenger	$2.00	14,761,346	$29,522,692
Commercial Air (Cargo only)	$200.00	948,218	$189,643,600
Commercial Maritime Vessel (Cargo Only)	$800.00	94,881	$75,904,800
Commercial Truck	$7.00	1,186,273	$8,303,911
Commercial Truck Transponder	$280.00	78,572	$22,000,160
Railcar	$2.00	2,465,821	$4,931,642
Commodity Permits	$1,200.00	10,367	$12,440,400
Pest Permits	$2,175.00	2,094	$4,554,450
Treatments	$275.00	31,927	$8,779,925
Total			**$744,506,928**
Reserve:			
Amount			$75,870,615
Number of Days			39

Table 5-16

Pros and Cons

Following are the pros and cons we identified for Alternative 3.

Pro	Con
Same as Alternative 2: • Additional costs are paid by the appropriate fee payers for permits and partially for treatments. • Still a relatively simple fee schedule, so there should not be a significant cost to implement it. • As mentioned in Section 4.2, the estimated economic impact for this alternative is significantly lower relative to other scenarios that were analyzed. The partial elimination of the caps can be viewed as phasing in the removal of the caps. This has several benefits: • The increase in costs to the associated industries is not as sudden. This reduces the economic impact and allows them time to prepare for removal of caps in the future. • It provides notice to the industries that APHIS intends to completely remove the caps in the future. • APHIS can see how behaviors change with the new caps, which could then inform how to address the caps further in the next fee review.	• Even though caps are increased, AQI would bring in less revenue compared to completely removing the caps. • This alternative maintains caps for all cargo conveyance modes except air cargo, which currently has no cap. • For treatments, there is still an additional cost to importers/brokers because they already pay for the cost of treatments conducted by a third party (typically $800 - $1,000). However, under Alternative 3 the treatment fee is one half of the treatment fee under Alternative 2.

Table 5-17

APHIS/CBP Revenue Allocation

The following table provides the Alternative 3 APHIS/CBP allocation for FY2013 – FY2015. The allocation also shows the portion related to imputed costs as previously discussed.

Alternative 3 APHIS/CBP Revenue Allocation			
	APHIS	**CBP**	**Total**
FY2013			
Retain in AQI Fund	$186,195,280	$480,073,613	$666,268,893
Remit to Treasury	$9,684,617	$17,869,510	$27,554,127
Total	**$195,879,897**	**$497,943,123**	**$693,823,020**
FY2014			
Retain in AQI Fund	$191,540,662	$487,244,703	$678,785,365
Remit to Treasury	$10,023,360	$18,429,865	$28,453,225
Total	**$201,564,021**	**$505,674,569**	**$707,238,590**
FY2015			
Retain in AQI Fund	$197,056,774	$517,975,847	$715,032,620
Remit to Treasury	$10,373,955	$19,100,352	$29,474,308
Total	**$207,430,729**	**$537,076,199**	**$744,506,928**

Table 5-18

5.4. Options Considered But Not Included in Alternatives

We considered a number of other options for revising the AQI fee structure that were not incorporated in the fee schedule alternatives presented above. We assessed these options using the criteria previously discussed and excluded them based on one or more of the criteria. The table below presents each option and the reason for not incorporating it in the fee schedule alternatives.

Potential Fee Item	Potential Revenue	Rationale for Exclusion
Privately owned vehicles (POVs) and pedestrians	POVs: $190M Pedestrians: $55M	We considered fees for POVs and pedestrians at land borders, and these fees would provide a significant amount of revenue for AQI. However, there would be significant logistical and administrative challenges to setting up the process to collect and account for the fees. In addition, the additional time it would take to collect the fees would likely result in significant delays at the border. Also, CBP does not support this fee option.

Potential Fee Item	Potential Revenue	Rationale for Exclusion
Bus passengers	$25M	We considered establishing a bus passenger fee using the same fee collection approach as the air passenger fee. However, this would require establishing the infrastructure and process for bus companies to collect and remit the fees since CBP does not have a comparable fee. In addition, the barriers to entry for the bus passenger industry are much lower compared to air and cruise vessel industries. As a result, there are more bus companies entering and exiting the industry, which would make fee collection and monitoring difficult.
Rail Passengers	$1.5M	We considered a separate fee for rail passengers but excluded it from the alternatives because it also would require setting up new infrastructure and processes (similar to bus passengers). Also, the amount of revenue would be relatively small and likely not worth the cost of setting up the fee collection process.
Private aircraft/vessels	$1M - $2M	We considered a separate fee for private aircraft and vessels, using the same approach as CBP by charging a fee for an annual decal. This would be relatively easy to administer by using CBP's current process, but the potential amount of revenue is relatively small. We also considered charging a fee per passenger but the cost is significantly higher compared to commercial air and sea passengers, primarily due to the amount of travel time required by CBP officers to reach the small airfields and ports.
Type of Maritime Cargo Conveyance	n/a	We considered establishing separate fees for each type of maritime cargo vessel (bulk, break bulk, and container) because discussions with CBP port staff indicated the required level of effort varies among them. We attempted to develop this cost information, but some of the data required to accurately cost each type was not available. We recommend that APHIS and CBP see if it is possible to begin collecting this data and address this issue in the next fee review. This issue is discussed in more detail in a separate deliverable.

Table 5-19

6. AQI Fee Exemptions

This section addresses Deliverable 6-2, which involves evaluating the current user fee exemptions listed in the regulations. We reviewed the list of AQI exemptions for conveyance and note the following:

- We were not able to establish the cost associated with the AQI exemptions because there is no data collected on the number of conveyances/passengers associated with the exemptions. As a result, we were not able to assess the extent to which these exemptions impact fee payers, with one exception. Assuming an average of 5 crew members for an international flight (as provided by APHIS), the cost of inspecting crew members is very small, as shown in the table below. The estimated cost of inspecting air crew is approximately two cents per passenger, or approximately one half of one percent of the unit cost.

A	Average crew size (assumed)	5
B	Number of aircraft	79,397
C	Estimated total number of crew (A x B)	396,985
D	Unit cost per passenger	$3.56
E	Total cost of inspecting air crew (C x D)	$1,413,267
F	Total number of air passengers (less crew)	76,051,720
G	Cost per air passenger (E / F)	$0.019
H	Percentage of unit cost (G / D)	0.52%

- We visited a number of ports to gain an understanding of AQI operations and issues that could impact the fee review, and we also talked to a number of APHIS and CBP staff and subject matter experts over the course of the fee review. In all of these discussions, there were no issues identified regarding the exemptions and their impact on the AQI fees.
- All of the exemptions seem reasonable and appear to involve unusual circumstances, small levels of volume, and/or low risk. In addition, these exemptions are consistent with CBP exemptions.
- Because the exemptions appear to have a very small impact on the AQI program overall, we don't consider additional data collection related to the exemptions to be a priority. This is a qualitative assessment based on the lack of issues identified during the fee review since we were unable to do any quantitative analysis due to the lack of data.

7. Risk and Science-Based Services

This section addresses Deliverable 6-4, which is an evaluation of how well the current user fee structure relates to risk-based and science-based services. We defined risk-based and science-based services as activities/outputs that primarily involve technical scientific identification and/or analysis. We also considered whether the current fees are based on the risk associated with a fee service. For this evaluation, we considered the following activities to be risk and/or science based services:

- Pest interception
- Pest identification
- Treatments
- Risk analysis

For this evaluation we note the following:

- The current fee structure does not specifically incorporate risk-based or science-based services. The current fee structure reflects only cargo conveyance modes and passengers.
- Pest interception, pest identification, and monitoring of treatments are science-based and address specific risks, and those costs are currently recovered through the inspection fees. However, there is currently no specific fee for any of these items.
- APHIS devotes significant effort to risk analysis, which identifies potential and emerging risks and how these new risks might be addressed. However, it would be difficult to relate risk analysis to a specific service, and we consider it a supporting activity that is not appropriate for a separate fee but should be included in the AQI inspection fees.

New Fee Schedule Alternatives

While we do not see risk- and science-based services reflected in the current fee schedule, the fee schedule alternatives presented above do address this issue. In particular, Alternatives 2 and 3 establish a separate fee for conducting and monitoring treatments. Shipments that require treatment represent a risk due to a pest presence or because the commodity requires treatment (due to its inherent risk) as a condition of entry.

In addition, Alternatives 2 and 3 include separate fees for commodity and pest permits. While acquiring a permit does not in itself present an immediate risk, this does represent risk- and science-based services because having the permit presents the opportunity for introduction of pests and their associated risks. In addition, there are conditions for permits based on the specific commodity and its associated risks. This is particularly true for pest permits, because they allow an importer to bring in a pest that would normally not be allowed into the country under any other circumstances. These present specific, significant risks, and there is a considerable amount of effort required to identify and establish protocols and procedures so the risk is mitigated when the pest is brought into the country.

The fees under Alternative 1 also incorporate risk, although to a lesser extent. As previously mentioned, the cost of pest interception, pest identification, and treatments are included in the conveyance fees. While Alternative 1 does not explicitly recover these costs through a separate fee, the associated costs are assigned to each cargo conveyance mode based on the number of interceptions, identifications and treatments. As such, each cargo conveyance mode fee reflects the risks (number of pests and required treatments) associated with the cargo delivered by each mode.

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