

Office of Regulatory Management  
Economic Review Form

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| <b>Agency name</b>  | Board for Professional Soil Scientists, Wetland Professionals, and Geologists   |
| <b>Virginia Administrative Code (VAC) Chapter citation(s)</b> | 18 VAC 145-20<br>18 VAC 145-30<br>18 VAC 145-40   |
| <b>VAC Chapter title(s)</b>                                   | Regulations Governing Professional Soil Scientists<br>Regulations Governing Professional Wetland Delineators<br>Regulations for the Geology Certification Program |
| <b>Action title</b>   | 2023 Fee Adjustment   |
| <b>Date this document prepared</b>                            | October 21, 2022  |

**Cost Benefit Analysis**

Table 1a must be completed for all actions. Tables 1b and 1c must be completed for actions (or portions thereof) where the agency is exercising discretion, including those where some of the changes are mandated by state or federal law or regulation. Tables 1b and 1c are not needed if **all** changes are mandated, and the agency is not exercising any discretion. In that case, enter a statement to that effect.

- (1) Direct Costs & Benefits: Identify all specific, direct economic impacts (costs and/or benefits), anticipated to result from the regulatory change. (A direct impact is one that affects entities regulated by the agency and which directly results from the regulatory change itself, without any intervening steps or effects. For example, the direct impact of a regulatory fee change is the change in costs for these regulated entities.) When describing a particular economic impact, specify which new requirement or change in requirement creates the anticipated economic impact. Keep in mind that this is the proposed change versus the status quo. One bullet has been provided, add additional bullets as needed.
- (2) Quantitative Factors:
  - (a) Enter estimated dollar value of total (overall) direct costs described above.
  - (b) Enter estimated dollar value of total (overall) direct benefits described above.
  - (c) Enter the present value of the direct costs based on the worksheet.
  - (d) Enter the present value of the direct benefits based on the worksheet.
- (3) Benefits-Costs Ratio: Calculate d divided by c OR enter it from the worksheet.
- (4) Net Benefit: Calculate d minus c OR enter it from the worksheet.
- (5) Indirect Costs & Benefits: Identify all specific, indirect economic impacts (costs and/or benefits), anticipated to result from the regulatory change. (An indirect impact is one that results from responses to the regulatory change, but which are not directly required by the regulation. Indirect impacts of a regulatory fee change on regulated entities could include a change in the prices they charge, changes in their operating procedures or employment levels, or decisions to enter or exit the regulated profession or market. Indirect impacts

also include responses by other entities that have close economic ties to the regulated entities, such as suppliers or partners.) If there are no indirect costs or benefits, include a specific statement to that effect.

- (6) Information Sources: Describe the sources of information used to determine the benefits and costs, including the source of the Quantitative Factors. If dollar amounts are not available, indicate why they are not.
- (7) Optional: Use this space to add any further information regarding the data provided in this table, including calculations, qualitative assessments, etc.

**Table 1a: Costs and Benefits of the Proposed Changes (Primary Option)**

|                             |  |
|-----------------------------|--|
| (1) Direct Costs & Benefits | <ul style="list-style-type: none"> <li> <p>• <b>Increase of application fee for initial licensure as a soil scientist or initial certification as a wetland professional or geologist.</b></p> <p>Direct Costs: Change increases the cost of the application fee for an initial license or certification from \$90 to \$120. Other direct costs are unchanged.</p> <p>Direct Benefits: There is no additional direct benefit resulting from the change. Otherwise, the direct benefit is the professional license or certification.</p> </li> <li> <p>• <b>Increase of application fee for license renewal as a soil scientist or certification of a wetland professional or a geologist.</b></p> <p>Direct Costs: Change increases the cost of the renewal fee for a license/certification from \$70 to \$120. Other direct costs are unchanged.</p> <p>Direct Benefits: There is no additional direct benefit resulting from the change. Otherwise, the direct benefit is the professional license or certification.</p> </li> <li> <p>• <b>Increase late fee for license renewal as a soil scientist or certification as a wetland professional or geologist.</b></p> <p>Direct Costs: Change increases the cost of the late fee for a license renewal from \$25 to \$35. Other direct costs are unchanged.</p> <p>Direct Benefits: There is no additional direct benefit resulting from the change. Otherwise, the direct benefit is the professional license or certification.</p> </li> <li> <p>• <b>Increase of fee for reinstatement of a licensure of soil scientist or certification as a wetland professional or geologist.</b></p> </li> </ul> |
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|                               | <p>Direct Costs: Change increases the cost of the fee for the reinstatement license from \$90 to \$120. Other direct costs are unchanged.</p> <p>Direct Benefits: There is no additional direct benefit resulting from the change. Otherwise, the direct benefit is the professional license or certification.</p>   |                 |
| (2) Quantitative Factors      | Estimated Dollar Amount  | Present Value   |
| Direct Costs                  | (a)  | (c)             |
| Direct Benefits               | (b)  | (d)             |
| (3) Benefits-Costs Ratio      |  | (4) Net Benefit |
| (5) Indirect Costs & Benefits | <p><u>Indirect Costs:</u> Indirect costs of the regulation are not anticipated to be impacted as a result of this regulatory change.</p> <p><u>Indirect Benefits:</u> The regulatory change will indirectly benefit DPOR because the Board will have sufficient revenue to cover the Board expenses without having to reduce services, obtain a Treasury loan, or obtain general funds. Otherwise, indirect benefits of the regulation are not anticipated to be impacted as a result of the regulatory change.</p>  |                 |
| (6) Information Sources       |  |                 |
| (7) Optional                  | <p>Box 2(a):</p> <p>The estimated direct cost to an individual to obtain an initial license is \$355. Direct costs are (i) the application fee (\$120); and (ii) the average license examination fee (\$235).</p> <p>The license examination fee for soil scientist is \$260; the examination fee for wetland professional is \$150, and the license examination fee for a geologist is \$530 (\$290 for the Practice of Geology Exam and \$240 for the Fundamentals of Geology Exam). The average of the exams is \$235.</p> <p>The estimated direct cost to renew a license is \$340. Direct costs are (i) the application fee (\$120); and (ii) an estimated cost for completing 16<sup>1</sup> hours</p> |                 |

<sup>1</sup> 18VAC145-20-125.A provides that a soil scientist complete 8 contact hours of CPE each year for a total of 16 CPE each two-year license cycle in order to renew a license.

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|  | <p>of continuing professional education (CPE) at \$13.75 per credit hour ≈ \$220.</p> <p>The Board does not approve CPE courses, so course providers are not required to provide information regarding course fees to the Board. Costs for CPE courses depend various factors including the course provider, length of the course, and method of instruction (e.g. classroom or virtual). Some providers provide training courses for no charge. Other providers, such as Soil Science Society of America (SSSA), have a subscription-based model that charges a flat fee for an unlimited access to numerous courses (current subscription price is \$110 for one full year from the date of purchase). The estimated cost per credit hour above is derived from the fee charged by SSSA. SSSA charges \$110 per year for virtual courses.</p> <p>Licenses are valid for a period of two years. Calculation of direct costs includes the direct costs for initial licensure (Year 0), and direct costs for renewal of a license every other year (Years 2, 4, 6, and 8). The calculation assumes that a licensee will complete 8 CPE during each year for a total of 16 CPE in two years.</p> <p>Calculation of direct costs does not include late fee for license renewal that would be due if a licensee fails to renew a license within the timeframe required by the regulation.</p> <p>Calculation of direct costs does not include the reinstatement fee that would be due if a licensee fails to renew a license within the timeframe required by the regulation.</p> <p>Box 2(b): This is the estimated value for the direct benefit of receiving the professional license or certification based on the average annual wage in Virginia for those who are soil scientists (\$74,830), wetland professionals (\$60,000) or geologists (\$122,796).</p> |
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**Table 1b: Costs and Benefits under the Status Quo (No change to the regulation)**

*This table addresses current requirements and the implications of not making any changes. In other words, describe the costs and benefits of maintaining the current regulatory requirements as is.*

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| <p>(1) Direct Costs &amp; Benefits</p> | <ul style="list-style-type: none"> <li>• <b>Direct costs and benefits of licensure based on current requirements.</b></li> </ul> <p>Direct Costs: Direct costs for an initial license are (i) the application fee; and (ii) the cost of the license examination. Direct costs for renewal of a license are (i) the application fee; and (ii) cost to complete CPE.</p> |
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|                               | Direct Benefits: The direct benefit is the professional license or certification.   |                 |  |
| (2) Quantitative Factors      | Estimated Dollar Amount   | Present Value   |  |
| Direct Costs                  | (a)   | (c)             |  |
| Direct Benefits               | (b)   | (d)             |  |
| (3) Benefits-Costs Ratio      |   | (4) Net Benefit |  |
| (5) Indirect Costs & Benefits | <p><u>Indirect Costs</u></p> <p>Indirect costs include, as applicable:</p> <ul style="list-style-type: none"> <li>• Time costs related to preparing for, and taking, the license examination.</li> <li>• Costs related to preparing for the licensing examination, to include classes and training materials.</li> <li>• Travel and incidental costs to take the license examination.</li> <li>• Time costs to complete the license application and obtain supporting documentation.</li> <li>• Administrative costs to complete the license application, including costs to obtain transcripts (if needed); and obtain verification of experience.</li> <li>• Time costs of third parties, such as those verifying experience or providing transcripts.</li> <li>• Time costs to attend and complete required CPE courses.</li> <li>• Travel and incidental costs to complete required CPE courses.</li> <li>• Administrative costs to submit license renewal.</li> </ul> <p>If no change is made, indirect costs to the public could include:</p> <ul style="list-style-type: none"> <li>• Reduction of services to the public, including delays in the processing of license applications, which may affect the ability of individuals to obtain employment for which the professional license or certification is required.</li> <li>• Supplement agency activities with general funds, which could (i) reduce available funds for other government services funded with general fund revenues; or (ii) create a need for additional general fund revenues to make up for the shortfall.</li> </ul> |                 |  |

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|                         | <ul style="list-style-type: none"> <li>• Obtain a Treasury loan to fund agency operations, which would likely lead to the need for additional revenues to the agency to repay the loan.</li> </ul> <p><u>Indirect Benefits</u></p> <p>Indirect benefits include:</p> <ul style="list-style-type: none"> <li>• The value to the public to solve problems associated with pollution, waste management, urbanization, and natural hazards, such as flooding and erosion.</li> <li>• Assistance in engineering structures to withstand flooding and earthquakes</li> <li>• Having wetlands that provide values that no other ecosystem can, including natural water quality improvement, flood protection, shoreline erosion control, opportunities for recreation and aesthetic appreciation and natural products for our use at no cost.</li> <li>• Wetlands that protect our safety and welfare. Along with the water we drink and the air we breathe, soil is one of our most important natural resources. We need to protect soil by keeping it healthy and using it wisely. Many soil scientists work with farmers, foresters, wine producers and other land users.</li> </ul> |
| (6) Information Sources |  |
| (7) Optional            | <p>Box 2(a):</p> <p>The estimated direct cost to an individual to obtain an initial license is \$325. Direct costs are (i) the application fee (\$90); and (ii) the average license or certification examination fee (\$235).</p> <p>The license examination fee for soil scientist is \$260; the examination fee for wetland professional is \$150, and the examination fee for a geologist is \$530 (\$290 for the Practice of Geology Exam and \$240 for the Fundamentals of Geology Exam). The average of the exams is \$235.</p> <p>The estimated direct cost to renew a license is \$290. Direct costs are (i) the application fee (\$70); and (ii) an estimated cost for completing 16<sup>2</sup> hours of continuing professional education (CPE) at \$13.75 per credit hour ≈ \$220.</p> <p>The Board does not approve CPE courses, so course providers are not required to provide information regarding course fees to the Board. Costs for CPE courses depend various factors including the course provider,</p>  |

<sup>2</sup> 18VAC145-20-125.A provides that a soil scientist shall complete 8 contact hours of CPE each year for a total of 16 CPE each two-year license cycle in order to renew a license.

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|  | <p>length of the course, and method of instruction (e.g. classroom or virtual). Some providers provide training courses for no charge. Other providers, such as Soil Science Society of America (SSSA), have a subscription-based model that charges a flat fee for an unlimited access to numerous courses (current subscription price is \$110 for one full year from the date of purchase). The estimated cost per credit hour above is derived from the fee charged by SSSA. SSSA charges \$110 per year for virtual courses.</p> <p>Licenses are valid for a period of two years. Calculation of direct costs includes the direct costs for initial licensure (Year 0), and direct costs for renewal of a license every other year (Years 2, 4, 6, and 8). The calculation assumes that a licensee will complete 8 CPE during each year for a total of 16 CPE in two years.</p> <p>Calculation of direct costs does not include the late fee for license renewal that would be due if a licensee fails to renew a license within the timeframe required by the regulation.</p> <p>Calculation of direct costs does not include the reinstatement fee that would be due if a licensee fails to renew a license within the timeframe required by the regulation.</p> <p>Box 2(b): This is the estimated value for the direct benefit of receiving the professional license or certification based on the average annual wage in Virginia for those who are soil scientists (\$74,830), wetland professionals (\$60,000) or geologists (\$122,796).</p> |
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**Table 1c: Costs and Benefits under an Alternative Approach**

*This table addresses an alternative approach to accomplishing the objectives with different requirements. These alternative approaches may include the use of reasonably available alternatives in lieu of regulation, or information disclosure requirements or performance standards instead of regulatory mandates.*

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| (1) Direct Costs & Benefits | <ul style="list-style-type: none"> <li>• <b>No change in the application fee for initial licensure as a soil scientist or initial certification as a wetland professional or geologist.</b></li> </ul> <p>Direct Costs: Application fee for an initial license remains \$90. Other direct costs are unchanged.</p> <p>Direct Benefits: The direct benefit is the professional license or certification.</p> <ul style="list-style-type: none"> <li>• <b>Increase of application fee for license renewal as a soil scientist or initial certification as a wetland professional or geologist.</b></li> </ul> |
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|                               | <p>Direct Costs: Change increases the cost of the application fee for renewal of a license from \$70 to \$125. Other direct costs are unchanged.</p> <p>Direct Benefits: There is no additional direct benefit resulting from the change. Otherwise, the direct benefit is the professional license or certification.</p> <ul style="list-style-type: none"> <li>• <b>Increase late fee for license renewal as a soil scientist or certification as a wetland professional or geologist.</b></li> </ul> <p>Direct Costs: Change increases the cost of the late fee for a license renewal from \$25 to \$35. Other direct costs are unchanged.</p> <p>Direct Benefits: There is no additional direct benefit resulting from the change. Otherwise, the direct benefit is the professional license or certification.</p> |                 |  |
| (2) Quantitative Factors      | Estimated Dollar Amount  | Present Value   |  |
| Direct Costs                  | (a)  | (c)             |  |
| Direct Benefits               | (b)  | (d)             |  |
| (3) Benefits-Costs Ratio      |  | (4) Net Benefit |  |
| (5) Indirect Costs & Benefits | <p><u>Indirect Costs:</u> Indirect costs of the regulation are not anticipated to be impacted as a result of this regulatory change.</p> <p><u>Indirect Benefits:</u> The regulatory change will indirectly benefit DPOR because the Board will have sufficient revenue to cover the Board expenses without having to reduce services, obtain a Treasury loan, or obtain general funds. Otherwise, indirect benefits of the regulation are not anticipated to be impacted as a result of this regulatory change.</p>   |                 |  |
| (6) Information Sources       |  |                 |  |
| (7) Optional                  | <p>Box 2(a):</p> <p>The estimated direct cost to an individual to obtain an initial license is \$325. Direct costs are (i) the application fee (\$90); and (ii) the average license examination fee (\$235).</p>   |                 |  |



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| <p>The license examination fee for soil scientist is \$260; the examination fee for wetland professional is \$150, and the examination fee for a geologist is \$530 (\$290 for the Practice of Geology Exam and \$240 for the Fundamentals of Geology Exam). The average of the exams is \$235.</p> <p>The estimated direct cost to renew a license is \$345. Direct costs are (i) the application fee (\$125); and (ii) an estimated cost for completing 16<sup>3</sup> hours of continuing professional education (CPE) at \$13.75 per credit hour ≈ \$220.</p> <p>The Board does not approve CPE courses, so course providers are not required to provide information regarding course fees to the Board. Costs for CPE courses depend various factors including the course provider, length of the course, and method of instruction (e.g. classroom or virtual). Some providers provide training courses for no charge. Other providers, such as Soil Science Society of America (SSSA), have a subscription-based model that charges a flat fee for an unlimited access to numerous courses (current subscription price is \$110 for one full year from the date of purchase). The estimated cost per credit hour above is derived from the fee charged by SSSA. SSSA charges \$110 per year for virtual courses.</p> <p>Licenses are valid for a period of two years. Calculation of direct costs includes the direct costs for initial licensure (Year 0), and direct costs for renewal of a license every other year (Years 2, 4, 6, and 8). The calculation assumes that a licensee will complete 8 CPE during each year for a total of 16 CPE in two years.</p> <p>Calculation of direct costs does not include the late fee for license renewal that would be due if a licensee fails to renew a license within the timeframe required by the regulation.</p> <p>Calculation of direct costs does not include the reinstatement fee that would be due if a licensee fails to renew a license within the timeframe required by the regulation.</p> <p>Box 2(b): This is the estimated value for the direct benefit of receiving the professional license or certification based on the average annual wage in Virginia for those who are soil scientists (\$74,830), wetland professionals (\$60,000) or geologists (\$122,796).</p> |
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### **Impact on Local Partners**

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<sup>3</sup> 18VAC145-20-125.A provides that a soil scientist shall complete 8 contact hours of CPE each year for a total of 16 CPE each two-year license cycle in order to renew a license.

- (1) Describe the direct costs and benefits (as defined on page 1) for local partners in terms of real monetary costs and FTEs. Local partners include local or tribal governments, school divisions, or other local or regional authorities, boards, or commissions. If local partners are not affected, include a specific statement to that effect and a brief explanation of the rationale.
- (2) Quantitative Factors:
  - (a) Enter estimated dollar value of total (overall) direct costs described above.
  - (b) Enter estimated dollar value of total (overall) direct benefits described above.
- (3) Indirect Costs & Benefits: Describe any indirect benefits and costs (as defined on page 1) for local partners that are associated with all significant changes. If there are no indirect costs or benefits, include a specific statement to that effect.
- (4) Information Sources: describe the sources of information used to determine the benefits and costs, including the source of the Quantitative Factors. If dollar amounts are not available, indicate why they are not.
- (5) Assistance: Identify the amount and source of assistance provided for compliance in both funding and training or other technical implementation assistance.
- (6) Optional: Use this space to add any further information regarding the data provided in this table, including calculations, qualitative assessments, etc.

Note: If any of the above information was included in Table 1, use the same information here.

**Table 2: Impact on Local Partners**

|                               |  |
|-------------------------------|--|
| (1) Direct Costs & Benefits   | No direct impact to local partners is anticipated as a result of the regulatory change. The licensure regulation does not impose direct costs on local government entities, and local government entities receive no direct benefits.  |
| (2) Quantitative Factors      | Estimated Dollar Amount  |
| Direct Costs                  | (a) N/A  |
| Direct Benefits               | (b) N/A  |
| (3) Indirect Costs & Benefits | <p>Local government entities that choose to assume the license/certification application fee costs for their employees to obtain and maintain soil scientist, wetland professional, or geologist licenses may be indirectly impacted as a result of the change. Such entities could either (i) absorb the additional costs; (ii) pass along the costs in the form of increased service fees to the public; or (iii) no longer pay for employees' licenses.</p> <p>There are no apparent indirect benefits to local government entities resulting from the regulatory change.</p> |

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| (4) Information Sources | N/A |
| (5) Assistance          | N/A |
| (6) Optional            | N/A |

**Economic Impacts on Families**

- (1) Describe the direct costs and benefits (as defined on page 1) to a typical family of three (average family size in Virginia according to the U. S. Census) arising from any proposed regulatory changes that would affect the costs of food, energy, housing, transportation, healthcare, and education. If families are not affected, include a specific statement to that effect and a brief explanation of the rationale.
- (2) Quantitative Factors:
  - (a) Enter estimated dollar value of direct costs.
  - (b) Enter estimated dollar value of direct benefits.
- (3) Indirect Costs & Benefits: Describe any indirect costs and benefits (as defined on page 1) to a typical family of three that are most likely to result from the proposed changes.
- (4) Information Sources: describe the sources of information used to determine the benefits and costs, including the source of the Quantitative Factors. If dollar amounts are not available, indicate why not.
- (5) Optional: Use this space to add any further information regarding the data provided in this table, including calculations, qualitative assessments, etc.

Note: If any of the above information was included in Table 1, use the same information here.

**Table 3: Impact on Families**

|                             |   |
|-----------------------------|---|
| (1) Direct Costs & Benefits | No direct impact to families is anticipated as a result of the regulatory change. The licensure regulation does not impose direct costs on families, and families receive no direct benefits. |
| (2) Quantitative Factors    | Estimated Dollar Amount   |
| Direct Costs                | (a) N/A   |
| Direct Benefits             | (b) N/A   |

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| (3) Indirect Costs & Benefits | No indirect impact to families is anticipated as a result of the regulatory change. |
| (4) Information Sources       | N/A   |
| (5) Optional                  | N/A   |

**Impacts on Small Businesses**

- (1) Describe the direct costs and benefits (as defined on page 1) for small businesses. For purposes of this analysis, “small business” means the same as that term is defined in § 2.2-4007.1. If small businesses are not affected, include a specific statement to that effect and a brief explanation of the rationale.
- (2) Quantitative Factors:
  - (a) Enter estimated dollar value of direct costs.
  - (b) Enter estimated dollar value of direct benefits.
- (3) Indirect Costs & Benefits: Describe the indirect benefits and costs (as defined on page 1) for small businesses that are most likely to result from the proposed changes.
- (4) Alternatives: Add a qualitative discussion of any equally effective alternatives that would make the regulatory burden on small business more equitable compared to other affected business sectors, and how those alternatives were identified.
- (5) Information Sources: describe the sources of information used to determine the benefits and costs, including the source of the Quantitative Factors. If dollar amounts are not available, indicate why not.
- (6) Optional: Use this space to add any further information regarding the data provided in this table, including calculations, qualitative assessments, etc.

Note: If any of the above information was included in Table 1, use the same information here.

**Table 4: Impact on Small Businesses**

|                             |   |
|-----------------------------|---|
| (1) Direct Costs & Benefits | Licenses for soil scientists, wetland professionals, and geologists are issued to individuals, and not to business entities. There are no direct impacts on small businesses. |
| (2) Quantitative Factors    | Estimated Dollar Amount   |
| Direct Costs                | (a) N/A   |
| Direct Benefits             | (b) N/A   |

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| (3) Indirect Costs & Benefits | Individuals who are licensed may be owners or employees of business entities that meet the definition of "small business" in § 2.2-4007.1 of the Code of Virginia. To the extent such business entities assume the costs for obtaining or maintaining a license, these entities would be indirectly affected. |
| (4) Alternatives              | N/A   |
| (5) Information Sources       | N/A   |
| (6) Optional                  | N/A   |

**Changes to Number of Regulatory Requirements**

*For each individual VAC Chapter amended, repealed, or promulgated by this regulatory action, list (a) the initial requirement count, (b) the count of requirements that this regulatory package is adding, (c) the count of requirements that this regulatory package is reducing, (d) the net change in the number of requirements. This count should be based upon the text as written when this stage was presented for executive branch review. Five rows have been provided, add or delete rows as needed.*

**Table 5: Total Number of Requirements**

|                | Number of Requirements |           |              |            |
|----------------|------------------------|-----------|--------------|------------|
| Chapter number | Initial Count          | Additions | Subtractions | Net Change |
|                |                        |           |              |            |
|                |                        |           |              |            |
|                |                        |           |              |            |
|                |                        |           |              |            |
|                |                        |           |              |            |