Small Business Economic Impact Analysis

Construction Stormwater General Permit

National Pollutant Discharge Elimination System and
State Waste Discharge General Permit

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Small Business Economic Impact Analysis

Construction Stormwater General Permit
National Pollutant Discharge Elimination System and State Waste Discharge General Permit

by
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for the

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Washington State Department of Ecology
Olympia, Washington
Executive Summary

The Construction Stormwater General Permit (CSWGP) allows businesses to proceed with construction activity under a general permit rather than having to obtain a state or National Pollutant Discharge Elimination System (NPDES) individual permit.

This Small Business Economic Impact Analysis (SBEIA) estimates the costs of complying with the Construction Stormwater General Permit (permit). It compares the costs of complying with the permit for small businesses to the costs of compliance for the largest 10 percent of businesses, to determine whether the permit disproportionately impacts small businesses. This analysis is required by state rule in Washington Administrative Code (WAC) 173-226-120, which directs Ecology to determine if the permit imposes disproportionate burden on small businesses, and if it does, to mitigate the disproportion to the extent that is legal and feasible.

WAC 173-226-120 requires the SBEIA to include:

- A brief description of the compliance requirements of the general permit.
- The estimated costs of complying with the permit, based on existing data for businesses intended to be covered under the general permit, including:
  - The minimum technology based treatment requirements identified as necessary under WAC 173-226-070.
  - The monitoring requirements contained in the general permit.
  - The reporting and recordkeeping requirements.
  - Plan submittal requirements.
  - Equipment.
  - Supplies.
  - Labor.
  - Increased administrative costs.
- A comparison, to the greatest extent possible, of the cost of compliance for small businesses with the cost of compliance for the largest ten percent of businesses intended to be covered under the permit.
- A summary of how the permit provides mitigation to reduce the effect on small businesses (if a disproportionate impact is expected), without compromising the mandated intent of the permit.

For the purposes of the SBEIA, a small business is an independent entity with 50 or fewer employees organized for or of making a profit. The number of employees is typically based on the highest available level of ownership data. We excluded not-for-profit and government enterprises.

Costs associated with permit requirements include costs of complying with:

- Monitoring
The requirements of this permit are estimated to add costs of $7,404 per year for sites with less than 5 acres. Sites with over five acres are estimated to have added costs of $12,519 per year.

Based on these results, Ecology concludes that the **general permit has a disproportionate impact on small businesses**. For each compliance area, the expected impact is disproportionate, even if we pair small job sites with small businesses and pair large job sites with large businesses.

Ecology has included the following mitigation features in the CSWGP to reduce the burden on small businesses.

- Sites smaller than 1 acre are exempt from turbidity and transparency monitoring, as well as needing a CESCL to complete site inspections.
- Sites less than 5 acres are given the option to use a lower cost transparency tube ($50) for stormwater monitoring instead of turbidity meter ($900).
- Operators may be allowed to omit aspects of the Stormwater Pollution Prevention Plan (and not implement Best Management Practices), if site conditions render that element unnecessary. This allows qualifying small sites, or those with less complexity, to have fewer BMPs than large or complex sites. As a result, small sites should have lower SWPPP/BMP costs.
- The low rainfall erosivity waiver (permit exemption) is available for certain projects smaller than five acres. This will only affect sites that meet the waiver criteria, but should significantly lower costs.
- Some facilities may qualify for and receive an extreme hardship permit fee reduction under the Wastewater Discharge Permit Fee Rule (Chapter 173-224 WAC). Extreme hardship applies only if the annual gross revenue of goods and services produced using the processes regulated under the permit is $100,000 or less and the fee poses an extreme hardship to the business.
Chapter 1: Introduction to the Small Business Economic Impact Analysis

This Small Business Economic Impact Analysis (SBEIA) estimates the costs of complying with the Construction Stormwater General Permit (permit). It compares the costs of complying with the permit for small businesses to the costs of compliance for the largest 10 percent of businesses, to determine whether the permit disproportionately impacts small businesses. This analysis is required by state rule in Washington Administrative Code (WAC) 173-226-120, which directs Ecology to determine if the permit imposes disproportionate burden on small businesses, and if it does, to mitigate the disproportion to the extent that is legal and feasible.

1.1 Scope
WAC 173-226-120 requires the SBEIA to include:

- A brief description of the compliance requirements of the general permit.

- The estimated costs of complying with the permit, based on existing data for businesses intended to be covered under the general permit, including:
  - The minimum technology based treatment requirements identified as necessary under WAC 173-226-070.
  - The monitoring requirements contained in the general permit.
  - The reporting and recordkeeping requirements.
  - Plan submittal requirements.
  - Equipment.
  - Supplies.
  - Labor.
  - Increased administrative costs.

- A comparison, to the greatest extent possible, of the cost of compliance for small businesses with the cost of compliance for the largest ten percent of businesses intended to be covered under the permit.

- A summary of how the permit provides mitigation to reduce the effect on small businesses (if a disproportionate impact is expected), without compromising the mandated intent of the permit.

1.2 Definitions of small and large businesses
For the purposes of the SBEIA, a small business is an independent entity with 50 or fewer employees organized for of making a profit. The number of employees is typically based on the highest available level of ownership data. We excluded not-for-profit and government enterprises.
1.3 Permit Coverage

1.3.1 Permit Overview

The Construction Stormwater General Permit (CSWGP) allows businesses to proceed with construction activity under a general permit rather than having to obtain a state or National Pollutant Discharge Elimination System (NPDES) individual permit.

Currently there are over 2,800 businesses\(^1\) covered under the CSWGP. We issue the CSWGP to general contractors and individuals or companies who owns and develop the site. In any case, the permit holder must meet the definition of “operator”.\(^2\)

The CSWGP affects a variety of individuals and industry classifications from nearly every major sector of the economy. NAICS (North American Industry Classification System) codes and descriptions used in this analysis are listed in Appendix A.

The CSWGP requires:

- An application packet, including a Notice of Intent form and associated public notice.
- Preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP) that describes stormwater best management practices (BMPs) to prevent erosion and sedimentation and protect water quality.
- Periodic site inspections to ensure that BMPs are properly installed and maintained. Inspections must be conducted by certified personnel (Certified Erosion and Sediment Control Leads), and be documented in a site log book.
- Monitoring and sampling of stormwater discharges for:
  - Turbidity and transparency.
  - pH (if the project includes significant concrete work or engineered soils.)
  - Pollutants (if there is a discharge to certain types of 303(d)-listed impaired water-bodies or water-bodies with a Total Daily Maximum Load (TMDL).
- A monthly Discharge Monitoring Report that documents compliance with the numeric and narrative effluent limitations, and to demonstrate SWPPP performance.
- A submittal by permittees of any documentation required by the permit to Ecology or the public upon request.
- The assurance by permittees their projects do not cause or contribute to violations of state water quality standards.

\(^{\text{1}}\) PARIS (Permit and Reporting Information System) Ecology database, existing general permit coverage.

\(^{\text{2}}\) Operator means any party associated with a construction project that meets the following two criteria:

- The party has operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications; and
- The party has day-to-day operational control of those activities at a project that are necessary to ensure compliance with a SWPPP for the site or other permit conditions (for example, they are authorized to direct workers at a site to carry out activities required by the SWPPP or comply with other permit conditions).
1.3.2 Monitoring and inspections
The following table summarizes the primary monitoring requirements.

Table 1: Required sampling by size of project

<table>
<thead>
<tr>
<th>Size of Soil Disturbance</th>
<th>Weekly Site Inspections</th>
<th>Weekly Sampling with Turbidity Meter</th>
<th>Weekly Sampling with Transparency Tube</th>
<th>Weekly pH Sampling4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1 acre</td>
<td>Required</td>
<td>Not Required</td>
<td>Not Required</td>
<td>Not Required</td>
</tr>
<tr>
<td>1 – 5 acres</td>
<td>Required</td>
<td>Sampling Required</td>
<td>Sampling Required</td>
<td>Required</td>
</tr>
<tr>
<td>More than 5 acres</td>
<td>Required</td>
<td>Required</td>
<td>Not Allowed</td>
<td>Required</td>
</tr>
</tbody>
</table>

1.3.3 Minimum treatment technology
Minimum treatment technology is used to minimize or prevent the discharge of pollutants to waters of the state. The permit does not have a specific minimum treatment required; rather, a performance standard is used that is site specific. In accordance with 40 CFR 122.44(k) and 40 CFR 122.44(s), the CSWGP includes requirements to develop and implement Stormwater Pollution Prevention Plans (SWPPPs) including Best Management Practices (BMPs).

The BMPs in the SWPPP meet the federal requirements for Best Conventional Pollutant Control Technology (BCT), Best Available Technology Economically Achievable (BAT), and Best Practicable Technology Available (BPT) for stormwater discharges. In addition, Ecology has determined that development of a SWPPP and implementation of adequate BMPs in accordance with this permit constitutes All Known, Available, and Reasonable Methods of Prevention, Control, and Treatment (AKART).

Water treatment is based on the appropriate selection of BMPs from approved technical manuals. These BMPs are used as necessary, to achieve performance standards and prevent violations of water quality standards. Some sites will require very basic erosion and sediment control BMPs (mulch, silt fence, etc.) while others will need extensive treatment technologies (sediment ponds, filters, etc.). The applicant identifies the necessary treatment BMPs in the SWPPP before starting construction activity covered by the permit. Ecology may require the permittee to revise the SWPPP (e.g., add or modify BMPs) based on site inspections and stormwater monitoring.

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3 Additional monitoring requirements may apply for: discharges to 303(d) listed waterbodies and waterbodies with applicable TMDLs for turbidity, fine sediment, high pH, or phosphorus - see Condition S8; sites required to perform additional monitoring by Ecology order – see Condition G13.

4 If construction activity results in the disturbance of 1 acre or more, and involves significant concrete work (1,000 cubic yards of placed or poured) or the use of recycled concrete or engineered soils (soil amendments including but not limited to Portland cement-treated base [CTB], cement kiln dust (CKD), or fly ash), and stormwater from the affected area drains to surface waters of the State or to a storm sewer or stormwater collection system that drains to or other surface waters of the state, the Permittee must conduct pH monitoring sampling.
1.3.4 Reporting and recordkeeping
Permittees must submit sampling data to Ecology on monthly Discharge Monitoring Reports (DMRs). DMRs must be submitted electronically using Ecology’s WebDMR system. Permittees unable to submit electronically can request a waiver. Ecology may request additional records from permittees.

The permittee must keep the permit documents on site (or within reasonable access to the site) for use by the operator, or for on-site review by Ecology or the local jurisdiction. Permit documentation includes:

- All monitoring information (site log book, sampling results, inspection reports/checklists, etc.).
- The SWPPP and any other documentation of compliance with permit requirements.

Records must be kept for the entire life of the construction project and for a minimum of five years after the termination of permit coverage.

1.3.5 Stormwater Pollution Prevention Plans submittal
All permittees must have a SWPPP. When submitting an application to Ecology the applicant does not have to include a copy of the SWPPP unless Ecology specifically requests it. Permittees must prepare and properly implement the SWPPP in accordance with the requirements of the permit, beginning with initial soil disturbance and until final stabilization.

1.3.6 Equipment
The permittees will likely buy monitoring equipment, as it is likely to be less expensive than paying for a professional monitoring service. The SWPPP may call for equipment such as pumps or tanks to manage stormwater. On large, complex sites, the SWPPP may require the use of heavy equipment to build a retention pond or engineered structures.

1.3.7 Labor
The permittee must respond to the day-to-day permit requirements of protecting water quality in the site vicinity. The permittee will need to dedicate time and effort to:

- Apply for the permit.
- Write and comply with the SWPPP.
- Perform monitoring and site inspections.
- Complete reporting requirements.
- Install and maintain BMPs.

1.3.8 Supplies
The permittee may need pH strips and sampling supplies, paper, and a notebook for the log book. The SWPPP may call for BMP materials and supplies such as:

- Silt fence
- Erosion control matting
• Grass seed
• Straw mulch

1.3.9 Administration
The site manager will need to ensure compliance with the SWPPP and the monitoring and reporting requirements.

1.4 Excluded costs
This SBEIA does not include the costs of complying with existing laws and rules, as permittees would be required to comply with requirements regardless of whether the permit reiterated or referenced them, or if the permit did not exist. Costs excluded from all SBEIAs include the costs of complying with:

• State ground water quality standards (WAC 173-200).
• State surface water quality standards (WAC 173-201A).
• State sediment management standards (WAC 173-204).
• Wastewater discharge permit fees (WAC 173-224).
• Federal laws and rules, including but not limited to the Clean Water Act and federal National Pollutant Discharge Elimination System (NPDES) regulations if discharging to surface waters.

1.5 Compliance costs included in the SBEIA
According to WAC 173-226-120, the SBEIA must estimate the costs of the following:

• The minimum technology based treatment requirements identified as necessary under WAC 173-226-070.
• The monitoring requirements contained in the general permit.
• The reporting and recordkeeping requirements.
• Any plan submittal requirements.
• The costs of equipment, supplies, labor, and any increased administrative costs.

As some costs are interconnected, we have analyzed a more appropriate breakdown of compliance costs for this general permit (still including all of the required elements) is:

• Monitoring
• Inspections
• Training
• Logging results
• Records
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Chapter 2: Costs of Compliance with the General Permit

Compliance costs are dependent on size of the construction site. In this chapter, Ecology estimated ranges of costs for most requirements—a low cost and a high cost. The low cost estimate is for small sites and the high cost estimate is for large sites. Some requirements have the same cost for small and large sites.

Most of the major assumptions used in making the compliance cost estimates are presented in this chapter. In general, we assume large sites will have twice as many samples and requirements and will take twice as long to complete. In addition, assumptions used in making estimates of capital costs are included. We annualized capital costs to compare them to services sites provide annually.

It is necessary to annualize costs because some costs are annual (incurred every year), while other costs are capital costs (incurred once). For example, equipment for pH testing is a one-time capital cost, while monitoring is an annual cost that must be incurred every year.

2.1 Compliance costs

Costs associated with permit requirements include costs of complying with:

- Monitoring
- Inspections
- Training
- Logging results
- Records

2.1.1 Monitoring

Monitoring costs will depend on the frequency of heavy rain, and the number of discharges from a disturbed area at the site. Sites in Western Washington will require more monitoring and have higher costs; the number of rainfall events that are sufficient to generate discharges is greater in Western Washington than in Eastern Washington.

Additionally, large sites may have more discharge points than small sites; however, the number of discharges may depend on the shape or topography as much as the size of a disturbed area. A large site with a single discharge point may require less effort than a small site with an odd topography and several discharges. Therefore, these costs are not strictly proportional to the size of the site. The cost of monitoring is also not a function of the size of the business running the site.
The following tables show the average annual number of rainfall events likely to result in a discharge from the site (half an inch/24-hour event) in a sample of major Washington cities.

Table 2: Rainfall and permits in selected areas in western WA

<table>
<thead>
<tr>
<th>Western WA cities</th>
<th>Rainfall Events Per Year</th>
<th>Number of Permits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port Angeles</td>
<td>13</td>
<td>16</td>
</tr>
<tr>
<td>Mt. Vernon</td>
<td>16</td>
<td>19</td>
</tr>
<tr>
<td>Bellingham</td>
<td>18</td>
<td>66</td>
</tr>
<tr>
<td>Seattle</td>
<td>21*</td>
<td>99</td>
</tr>
<tr>
<td>Tacoma</td>
<td>22</td>
<td>87</td>
</tr>
<tr>
<td>Vancouver</td>
<td>23</td>
<td>189</td>
</tr>
</tbody>
</table>

Note: Measurement at University of Washington.

Table 3: Rainfall and permits in selected areas in eastern WA

<table>
<thead>
<tr>
<th>Eastern WA cities</th>
<th>Rainfall Events Per Year</th>
<th>Number of Permits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Richland</td>
<td>1</td>
<td>21</td>
</tr>
<tr>
<td>Yakima</td>
<td>2</td>
<td>17</td>
</tr>
<tr>
<td>Spokane</td>
<td>9</td>
<td>47</td>
</tr>
</tbody>
</table>

Note: Measurement at University of Washington.

Ecology estimates the monitoring costs for turbidity and pH based on:

1. There are 18.75 weeks during which there would be a discharge to monitor.  
2. The estimated cost of labor is $57.15 per hour.  
3. Sampling and entering results is expected to require an hour for turbidity for 1-5 acre sites and 2 hours for 5+ acre sites. Extra pH testing is expected to require 10 minutes.  
4. Transparency tubes are estimated to cost $50 and the average cost per use of a turbidity meter is estimated to cost $18.  
5. PH strips are estimated to cost $12 for 100 strips including shipping and handling.

Ecology estimates monitoring costs for sites with 1-5 acres at $1,650 per year, and at $2,721 per year for sites 5+ acres.

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5 This is a weighted average of the number of events based on the number of sites in each area.  
6 Washington State Department of Labor and Industries- average carpentry prevailing wage across all counties in the state.  
8 Note that some jobs sites that discharge to an impaired water body may have additional monitoring.  
10 A company can also choose to buy a turbidity monitor, to avoid the per-use cost, for approximately $900.  
11 A company can also choose to buy a pH meter, for approximately $50. This is required for 303-d-listed waters and may take more time.
2.1.2 Inspections
Inspection costs will depend on the number of discharges from a disturbed area and the complexity of Best Management Practices (BMPs) in place to prevent stormwater contamination, and to treat stormwater when necessary. These costs vary in part based on the site characteristics, including topography, soils, and the size of the site. Thus, these costs are not strictly proportional to the size of the property. The cost of inspections is also not a function of the size of the business running the site. The following table shows the total costs per year for inspections.

Table 4: Annual inspection costs

<table>
<thead>
<tr>
<th>Inspection Costs</th>
<th>1-5 acres</th>
<th>5+ acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>1 hour</td>
<td>2 hours</td>
</tr>
<tr>
<td>Cost of Labor</td>
<td>$57.15</td>
<td>$57.15</td>
</tr>
<tr>
<td>Number of Inspection Events</td>
<td>70.75</td>
<td>70.75</td>
</tr>
<tr>
<td>Total Cost</td>
<td>$4,043</td>
<td>$8,086</td>
</tr>
</tbody>
</table>

2.1.3 Training
The person performing inspections must have training as a “Certified Erosion and Sediment Control Lead” or CESCL. The cost of training is unrelated to the job site and the number of employees in the firm. The average price of the class is $375, plus a labor cost for that time, plus assumed travel to and from the class of 60 miles. An 8-hour recertification course is required after three years and is valid for another three years. The average cost for the recertification course is about $200.

Ecology estimates an average annual cost of $352 based on one cycle of the class, recertification, and labor and travel time.

2.1.4 Logging inspection results
The results from inspections must be recorded in the log book. The log book entry is expected to take 10 minutes during each inspection. Using the wage rate of $57.15 and 70.75 inspection events, Ecology estimates a cost of $674 per year.

2.1.5 Records
Permittees must keep records for the entire length of the construction project and for a minimum of five years following the termination of permit coverage. Permittees must file Discharge Monitoring Reports (DMRs). Using the wage rate of $57.15 per hour, Ecology estimates this requirement will cost businesses $686 per year, for monthly, one-hour total recordkeeping activity.

2.1.6 Total compliance costs
This section presents the total annual cost to comply with the Construction Stormwater General Permit.

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12 There are 18.75 weeks during which there would be rain events requiring inspection, in addition to the 52 weekly inspections.
13 Certified Erosion and Sediment Control Lead- Training and Certification Programs
Table 5: Total annual compliance costs

<table>
<thead>
<tr>
<th>Requirements</th>
<th>1-5 acres</th>
<th>5+ acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monitoring</td>
<td>$1,650</td>
<td>$2,721</td>
</tr>
<tr>
<td>Inspections</td>
<td>$4,043</td>
<td>$8,086</td>
</tr>
<tr>
<td>Training</td>
<td>$352</td>
<td>$352</td>
</tr>
<tr>
<td>Logging Results</td>
<td>$674</td>
<td>$674</td>
</tr>
<tr>
<td>Records</td>
<td>$686</td>
<td>$686</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$7,404</strong></td>
<td><strong>$12,519</strong></td>
</tr>
</tbody>
</table>

Note: Sums may be slightly off due to rounding.
Chapter 3: Relative Compliance Costs for Small and Large Businesses

This chapter compares the costs of compliance per employee for small businesses to the compliance cost per employee at the largest 10 percent of businesses covered by the permit. The governing rule (173-226-120) allows for this comparison to be made on one of the following bases:

- Cost per employee
- Cost per hour of labor
- Cost per one hundred dollars of sales

We use cost per employee, because this data is readily and most comprehensively available for businesses operating in Washington State.

3.1 Facility size data

Currently there are over 2,800 businesses covered under the Construction Stormwater General Permit. The data available regarding employment for existing permittees is limited. Most of the permittees are not listed in Workforce Explorer; many projects are identified by site location rather than ownership. Because we cannot protect employment data gathered from any non-public source for this kind of analysis, the use of sparse publicly available data was necessary.

About half of the permits were written for sites with less than five acres of disturbed area, while the remaining permits were written for sites disturbing between five and five hundred acres. The largest sites were for wind projects. The average disturbed acreage is 11 acres.

Based on a representative sample of employment data, we used the average of **12 employees to represent employment at an average small business**. A small business is defined as a company with 50 or fewer employees.

The average large business employed over eleven thousand people, and the **largest 10 percent of businesses employed nearly 27 thousand workers** (both measures exclude a high-end outlier employing 2.2 million part-time and full-time workers worldwide).

Notably, nearly half of the entities recorded as having been covered by the general permit were not found in the Washington State Employment Security Department database. This is likely because they were individuals or short-term business entities for only the duration of the construction project.

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14 PARIS (Permit and Reporting Information System) Ecology database, existing general permit coverage.
16 Ibid.
Also, several projects were performed by public entities (cities, counties, state government, school districts, etc.) and some by non-profit enterprises. We excluded these from the analysis because they don’t meet the definition of business in the governing rule.

### 3.2 Relative costs of compliance

The following table is a summary of estimated costs required by the CSWGP as well as the ratio for cost per employees to small and large businesses.

Table 6: Total annual compliance costs per employee ratios

<table>
<thead>
<tr>
<th>Requirements</th>
<th>1-5 acres</th>
<th>5+ acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monitoring</td>
<td>$1,650</td>
<td>$2,721</td>
</tr>
<tr>
<td>Inspections</td>
<td>$4,043</td>
<td>$8,086</td>
</tr>
<tr>
<td>Training</td>
<td>$352</td>
<td>$352</td>
</tr>
<tr>
<td>Log Book</td>
<td>$674</td>
<td>$674</td>
</tr>
<tr>
<td>Records</td>
<td>$686</td>
<td>$686</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$7,404</strong></td>
<td><strong>$12,519</strong></td>
</tr>
</tbody>
</table>

Table 7: Small business cost per employee (Average 12 employees)

<table>
<thead>
<tr>
<th>Requirements</th>
<th>1-5 acres</th>
<th>5+ acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monitoring</td>
<td>$137</td>
<td>$227</td>
</tr>
<tr>
<td>Inspections</td>
<td>$337</td>
<td>$674</td>
</tr>
<tr>
<td>Training</td>
<td>$29</td>
<td>$29</td>
</tr>
<tr>
<td>Log Book</td>
<td>$56</td>
<td>$56</td>
</tr>
<tr>
<td>Records</td>
<td>$57</td>
<td>$57</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$617</strong></td>
<td><strong>$1,043</strong></td>
</tr>
</tbody>
</table>

Table 8: Large business cost per employee (Average 21,855 employees)

<table>
<thead>
<tr>
<th>Requirements</th>
<th>1-5 acres</th>
<th>5+ acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monitoring</td>
<td>$0.06</td>
<td>$0.10</td>
</tr>
<tr>
<td>Inspections</td>
<td>$0.15</td>
<td>$0.30</td>
</tr>
<tr>
<td>Training</td>
<td>$0.01</td>
<td>$0.01</td>
</tr>
<tr>
<td>Log Book</td>
<td>$0.03</td>
<td>$0.03</td>
</tr>
<tr>
<td>Records</td>
<td>$0.03</td>
<td>$0.03</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$0.28</strong></td>
<td><strong>$0.47</strong></td>
</tr>
</tbody>
</table>

Based on these results, Ecology concludes that the general permit has a disproportionate impact on small businesses. For each compliance area, the expected impact is disproportionate, even if we pair small job sites with small businesses and pair large job sites with large businesses.
Chapter 4: Mitigation of Disproportional Impacts

The general permit likely imposes disproportionate costs on small businesses, so Ecology took the legal and feasible actions described in this chapter to reduce small business compliance burden.

4.1 Mitigation options under WAC 173-226-120
The governing rule states the following options should be considered to reduce the impact of the permit on small businesses.

- Establishing differing compliance or reporting requirements or timetables for small businesses.
- Clarifying, consolidating, or simplifying the compliance and reporting requirements under the general permit for small businesses.
- Establishing performance rather than design standards.
- Exempting small businesses from parts of the general permit.

4.2 Mitigation actions
Ecology has taken the following actions to mitigate the compliance cost impact of the permit.

- Establish differing compliance or reporting requirements or timetables for small business.
- Establish performance rather than design standards.
- Exempt small businesses from parts of the general permit.
- Provide extreme hardship permit fee reduction.

In each of the features listed below, Ecology used the flexibility available to reduce costs. This will reduce costs for the affected small businesses but will also reduce costs for large businesses. Ecology amended the general permit to mitigate its impacts as follows.

1. Establish differing compliance or reporting requirements or time tables for small business:
   - Sites smaller than 1 acre are exempt from turbidity and transparency monitoring, as well as needing a CESCL to complete site inspections.
   - Sites less than 5 acres are given the option to use a lower cost transparency tube ($50) for stormwater monitoring instead of turbidity meter ($900).

2. Establish performance rather than design standards:
   - This allows operators to omit some requirements among the 13 elements if site conditions render the requirements unnecessary.
   - This allows small sites, or those with less complexity, to have fewer BMPs than large or complex sites. As a result, small sites should have lower SWPPP/BMP costs.

3. Exempt small businesses:
• The low rainfall erosivity waiver (permit exemption) is available for certain projects smaller than 5 acres.
• This will only affect sites that meet the waiver criteria, but should significantly lower costs.

4. Provide extreme hardship permit fee reduction:
• Some facilities may qualify for and receive an extreme hardship permit fee reduction under the Wastewater Discharge Permit Fee Rule (Chapter 173-224 WAC).
• Extreme hardship applies only if the annual gross revenue of goods and services produced using the processes regulated under the permit is $100,000 or less and the fee poses an extreme hardship to the business.

We performed this analysis during the COVID-19 pandemic, and acknowledge the difficult circumstances faced by many businesses – particularly small businesses – during this extraordinary time. Significant uncertainty remains about the size and duration of pandemic impacts on businesses likely to use the general permit. During permit development, Ecology took into consideration potential funding or resource limitations in the aftermath of small business closures or reduced demand. While we continue to meet our obligations under the authorizing statutes and the reductions in disproportionate compliance costs required by rule (WAC 173-226-120), we have also made considerations for this exceptional and urgent circumstance.
References

RCW 34.05.272 requires Ecology to categorize sources of information used in significant agency actions made in the Water Quality Program.

**Independent peer review:** Review is overseen by an independent third party.
N/A

**Internal peer review:** Review by staff internal to Ecology.


**External peer review:** Review by persons that are external to and selected by Ecology.
N/A

**Open review:** Documented open public review process that is not limited to invited organizations or individuals.
http://www.census.gov/eos/www/naics/

**Legal and policy documents:** Documents related to the legal framework for the significant agency action, including but not limited to: federal and state statutes, court and hearings board decisions, federal and state administrative rules and regulations, and policy and regulatory documents adopted by local governments.

- 40 CFR 122.44
- Chapter 173-200 WAC
- Chapter 173-201A WAC
- Chapter 173-204 WAC
- Chapter 173-224 WAC
- Chapter 173-226 WAC

**Data from primary research, monitoring activities, or other sources, but that has not been incorporated as part of documents reviewed under independent, internal, or external peer review.**
http://www.ecy.wa.gov/PROgrams/wq/permits/paris/index.html
Records of the best professional judgment of Ecology employees or other individuals.
N/A

Other: Sources of information that do not fit into other categories.
   Forestry Suppliers (2020).
   https://www.forestry-suppliers.com
Appendix A

The following is a list of the North American Industry Classification System (NAICS) codes and descriptions, for industries with private businesses affected by this permit, based on existing general permit coverage records. Other types of business may be affected, however, as the general permit regulates construction activities, which may be performed or paid for by members of any industry during the lifetime of this general permit.

Table 9: Industry codes of existing affected businesses

<table>
<thead>
<tr>
<th>NAICS code</th>
<th>NAICS Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2122</td>
<td>Metal ore mining</td>
</tr>
<tr>
<td>2211</td>
<td>Electric power generation, transmission, and distribution</td>
</tr>
<tr>
<td>2213</td>
<td>Water, sewage, and other systems</td>
</tr>
<tr>
<td>2361</td>
<td>Residential building construction</td>
</tr>
<tr>
<td>2362</td>
<td>Nonresidential building construction</td>
</tr>
<tr>
<td>2371</td>
<td>Utility system construction</td>
</tr>
<tr>
<td>2372</td>
<td>Land subdivision</td>
</tr>
<tr>
<td>2381</td>
<td>Foundation, structure, and building exterior contractors</td>
</tr>
<tr>
<td>2389</td>
<td>Other specialty trade contractors</td>
</tr>
<tr>
<td>3115</td>
<td>Dairy product manufacturing</td>
</tr>
<tr>
<td>3327</td>
<td>Machine shops; turned product; and screw, nut, and bolt manufacturing</td>
</tr>
<tr>
<td>3345</td>
<td>Navigational, measuring, electromedical, and control instruments manufacturing</td>
</tr>
<tr>
<td>3364</td>
<td>Aerospace product and parts manufacturing</td>
</tr>
<tr>
<td>3366</td>
<td>Ship and boat building</td>
</tr>
<tr>
<td>4233</td>
<td>Lumber and other construction materials merchant wholesalers</td>
</tr>
<tr>
<td>4238</td>
<td>Machinery, equipment, and supplies merchant wholesalers</td>
</tr>
<tr>
<td>4239</td>
<td>Miscellaneous durable goods merchant wholesalers</td>
</tr>
<tr>
<td>4521</td>
<td>Department stores</td>
</tr>
<tr>
<td>4854</td>
<td>School and employee bus transportation</td>
</tr>
<tr>
<td>5221</td>
<td>Depository credit intermediation</td>
</tr>
<tr>
<td>5231</td>
<td>Securities and commodity contracts intermediation and brokerage</td>
</tr>
<tr>
<td>5242</td>
<td>Agencies, brokerages, and other insurance related activities</td>
</tr>
<tr>
<td>5311</td>
<td>Lessors of real estate</td>
</tr>
<tr>
<td>5312</td>
<td>Offices of real estate agents and brokers</td>
</tr>
<tr>
<td>5413</td>
<td>Architectural, engineering, and related services</td>
</tr>
<tr>
<td>5416</td>
<td>Management, scientific, and technical consulting services</td>
</tr>
<tr>
<td>5417</td>
<td>Scientific research and development services</td>
</tr>
<tr>
<td>5629</td>
<td>Remediation and other waste management services</td>
</tr>
<tr>
<td>6211</td>
<td>Offices of Physicians</td>
</tr>
<tr>
<td>7211</td>
<td>Traveler accommodation</td>
</tr>
</tbody>
</table>