

## APPENDIX C | INITIAL REGULATORY FLEXIBILITY ANALYSIS AND ENERGY IMPACT ANALYSIS

1. This appendix considers the extent to which the impacts discussed in the previous Sections will be borne by small businesses and the energy industry. The analysis presented in Section C.1 is conducted pursuant to the Regulatory Flexibility Act (RFA) as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996, and meets the requirements of an Initial Regulatory Flexibility Analysis (IRFA). The energy analysis in Section C.2 is conducted pursuant to Executive Order No. 13211.
- C.1 IMPACTS TO SMALL ENTITIES**
2. When a Federal agency proposes regulations, the RFA requires the agency to prepare and make available for public comment an IRFA that describes the effect of the rule on small entities (i.e., small businesses, small organizations, and small government jurisdictions).<sup>1</sup>
  3. If a proposed rule is not expected to have a significant impact on a substantial number of small entities, the RFA allows an agency to so certify the rule, in lieu of preparing an IRFA.<sup>2</sup> In the case of the proposed critical habitat for the Canada lynx, uncertainty exists surrounding both the numbers of entities that will be subject to the proposed rule and the degree of impact on particular entities. In particular, uncertainty exists regarding the nature and cost of project modifications that may be requested by the Service, and the distribution of these costs across the affected industries. The problem is complicated by differences among entities—even in the same sector—as to the nature and size of their operations. Therefore, to ensure a broad consideration of impacts on small entities, the Service prepared an IRFA without first making the threshold determination whether the proposed critical habitat designation could be certified as not having a significant economic impact on a substantial number of small entities. This IRFA was made available to the public on September 11, 2006.<sup>3</sup>
  4. This appendix meets the requirements for completing a Final Regulatory Flexibility Analysis (FRFA) according to RFA/SBREFA.

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<sup>1</sup> 5 U.S.C. 601 et seq.

<sup>2</sup> Thus, for a regulatory flexibility analysis to be required, impacts must exceed a threshold for “significant impact” and a threshold for a “substantial number of small entities.” 5 U.S.C. 605(b).

<sup>3</sup> 71 Federal Register 53355-53361, September 11, 2006.

**C.1.1 SUMMARY OF IMPACTS ON SMALL ENTITIES**

5. This analysis concludes that, of the activities considered to be impacted by this rulemaking in Sections 3 through 9 of this report, only impacts to timber and development activities are expected to be experienced by small entities.
6. For timber activities, Exhibit C-1 describes the number of small businesses that may be impacted by the rulemaking, their earnings, and estimated co-extensive impacts of critical habitat designation for the lynx.

**EXHIBIT C-1. SUMMARY OF IMPACTS ON SMALL ENTITIES IN THE TIMBER INDUSTRY**

IMPACTS OF LYNX CONSERVATION ON SMALL ENTITIES IN THE TIMBER INDUSTRY				
SUBUNIT	NUMBER OF SMALL TIMBER-RELATED FIRMS	TOTAL FORESTRY-RELATED EARNINGS IN COUNTIES CONTAINING CRITICAL HABITAT*	ESTIMATED ECONOMIC IMPACT TO SMALL TIMBER-RELATED ENTITIES* (POTENTIAL LOST REVENUES)	POTENTIAL LOST REVENUE AS A PERCENT OF TOTAL EARNINGS
Unit 1: Maine	408	\$191 million	\$10.8 million	5.6 %
Unit 2: Minnesota	198	\$52.7 million	\$5.11 million	9.7 %
Unit 3: Northern Rocky Mountains	680	\$195 million	\$6.03 million	3.1 %
Unit 4: Northern Cascades	258	\$14.6 million	\$1.42 million	9.7 %
<p>*Total forestry-related earnings and estimated economic impacts are totals within the industries; the earnings by and impacts to large businesses are included. However, as described in Section C.1.2.3, most (74 to 100 percent depending on State and sector) of all businesses in relevant industries are small. This analysis therefore assumes that the earnings and impacts are associated with small businesses.</p> <p>Sources: Forestry related earnings represent combined earnings for the Forestry and Logging and the Wood Products Manufacturing sectors. BEA data for 2003 accessed at <a href="http://www.bea.gov/bea/regional/reis">http://www.bea.gov/bea/regional/reis</a>. Derivation of impacts by Unit is detailed in Appendix D, and summarized by subunit in Appendix F.2.</p>				

7. For development activities, impacts are most likely to be borne by the current landowners, who may experience decreased land values due to potential limitations on development.
8. Applying the number of parcels as a proxy for the number of landowners, the number of landowners in the study area expected to experience development impacts is estimated to be up to 2,843 for Units 1 and 3.<sup>4</sup> Information is not available to estimate the number of landowners potentially affected in Unit 2. Additionally, 6,225 small development-related entities exist in the region and may be affected by restrictions on regional development.

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<sup>4</sup> This may overstate the number of landowners as landowners may own multiple parcels registered under different names.

9. Some percentage of the landowners within the study area may be small businesses; however, due to the geographic scope of the designation, information is not available regarding how many landowners may be businesses, and further, how many may be small businesses. This analysis describes a high-end impact estimate, in which all landowners are small businesses.

**EXHIBIT C-2. SUMMARY OF IMPACTS ON SMALL ENTITIES IN THE DEVELOPMENT INDUSTRY**

POTENTIALLY IMPACTED SMALL ENTITIES IN THE DEVELOPMENT INDUSTRY			
SUBUNIT	NUMBER OF LANDOWNERS THAT COULD EXPERIENCE DEVELOPMENT IMPACTS <sup>(1)</sup>	NUMBER OF SMALL DEVELOPMENT-RELATED FIRMS <sup>(2)</sup>	ESTIMATED ANNUALIZED ECONOMIC IMPACT RELATED TO DEVELOPMENT-ACTIVITIES (LOST OPTION VALUE) <sup>(3)</sup>
Unit 1: Maine	13	1,585	\$75,800
Unit 2: Minnesota	Not available	1,531	\$21.3 million
Unit 3: Northern Rocky Mountains	2,830	3,109	\$1.73 million
Unit 4: Northern Cascades	Not applicable	Not applicable	None

Notes:  
 (1) IEC analysis of GIS data to identify the number of parcels potentially experiencing development impacts; derivation of development impacts is detailed in Section 4.  
 (2) See Exhibits C-4 thru C-6.  
 (3) Derivation of development impacts is detailed in Section 4; this represents upper bound of impacts annualized using a 3% discount rate. As described in Section C.1.2.3, most (90 to 100 percent depending on State and sector) of all businesses in relevant industries are small. This analysis therefore assumes that the earnings and impacts are associated with small businesses.

10. To estimate the economic impacts of compliance on small development-related businesses would require additional information. Specifically, such an analysis would require information on the number, location, and type of development projects planned within the study area. Available information indicates there is one proposed development in the early planning stages near the Moosehead Lake area in Maine; however, the extent and specific location of planned development across the study area is speculative.
11. Absent specific information on how development projects would mitigate or compensate for effects on the lynx or its habitat, the analysis relies on the assumption that development beyond a certain threshold level (based on timber-related LCAS standards) would be precluded. Estimated impacts represent the potential lost option value for development for those acres where development is assumed to be precluded, resulting in present value impacts of \$709 million at the high end, which equates to \$23.1 million annualized at three percent. The distribution of impacts to development activities, and therefore where small development-related entities are most likely to be impacted by development restrictions, is described in Section 4 and Appendix G of this analysis.

**C.1.2 FRFA**

12. This FRFA is intended to improve the Service's understanding of the effects of the proposed rule on small entities and to identify opportunities to minimize these impacts in the final rulemaking. Exhibit C-3 describes the components of an FRFA. The remainder of this section addresses each of these FRFA requirements.

**EXHIBIT C-3. ELEMENTS OF A FRFA**

ELEMENTS OF A FINAL REGULATORY FLEXIBILITY ANALYSIS
1. A succinct statement of the need for, and objectives of, the rule. (Section C.1.2.1).
2. A summary of the significant issues raised by the public comments in response to the IRFA, a summary of the assessment of the agency of such issues, and a statement of any changes made in the proposed rule as a result of such comments. (Section C.1.2.2).
3. A description and an estimate of the number of small entities to which the rule will apply (Section C.1.2.3).
4. A description of the projected reporting, recordkeeping, and other compliance requirements of the rule, including an estimate of the classes of small entities that will be subject to the requirement and the types of professional skills necessary for the preparation of the report or record (Section C.1.2.4).
5. A description of steps the agency has taken to minimize the significant adverse economic impact on small entities consistent with the stated objectives of applicable statutes, including a statement of the factual, policy, and legal reasons for selecting the alternative adopted in the final rule and why each of the other significant alternatives to the rule considered by the agency was rejected (Section C.1.2.5).
Source: Small Business Administration, Office of Advocacy. May 2003. A Guide for Government Agencies: How to Comply with the Regulatory Flexibility Act. pg. 49.

**C.1.2.1 Statement of the need for, and objectives of, the rule**

13. Section 4(a)(3) of the Endangered Species Act (Act) requires the Service to designate critical habitat for threatened and endangered species to the maximum extent prudent and determinable.<sup>5</sup> Given that the Canada lynx is Federally-listed as threatened under the Act, the Service finds that the designation of critical habitat is required.
14. Additionally, pursuant to *Defenders of Wildlife, et al.*, the U.S. District Court for the District of Columbia instructed the Service to propose critical habitat by November 1, 2005, and to issue a final rule for critical habitat by November 1, 2006. This proposed rule has been completed in compliance with the Court order.
15. The benefits of critical habitat designation derive from section 7 of the Act, which requires that Federal agencies, in consultation with the Service, ensure that actions they carry out, permit, or fund are not likely to destroy or adversely modify critical habitat.

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<sup>5</sup> 16 U.S.C. Sections 1531-1544.

16. As noted above, the Act requires the Service to designate critical habitat for threatened and endangered species to the maximum extent prudent and determinable. Section 4(b)(2) of the Act requires that the Service designate critical habitat "on the basis of the best scientific data available and after taking into consideration the economic impact, the impact on national security, and any other relevant impacts, of specifying any particular area as critical habitat." This section grants the Secretary [of Interior] to exclude any area from critical habitat if (s)he determines "the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat". The Secretary's discretion is limited, as (s)he may not exclude areas if it "will result in the extinction of the species."
17. The purpose of the proposed rule is to designate critical habitat for the Canada lynx pursuant to the Act.

C.1.2.2 Summary of the significant issues raised by the public comments in response to the IRFA, a summary of the assessment of the agency of such issues, and a statement of any changes made in the proposed rule as a result of such comments

18. A complete summary of public comments and Service responses are included in the Final Rule. The remainder of this FRFA describes impacts to small entities as a result of the Proposed Rule and does not reflect changes made to the designation in the Final Rule.

C.1.2.3 A description and an estimate of the number of small entities to which the rule will apply

#### **Definition of a Small Entity**

19. Three types of small entities are defined in the RFA:
- Small Business - Section 601(3) of the RFA defines a small business as having the same meaning as small business concern under section 3 of the Small Business Act. This includes any firm that is independently owned and operated and is not dominant in its field of operation. The U.S. Small Business Administration (SBA) has developed size standards to carry out the purposes of the Small Business Act, and those size standards can be found in 13 CFR 121.201. The size standards are matched to North American Industry Classification System (NAICS) industries. The SBA definition of a small business applies to a firm's parent company and all affiliates as a single entity.
  - Small Governmental Jurisdiction - Section 601(5) defines small governmental jurisdictions as governments of cities, counties, towns, townships, villages, school districts, or special districts with a population of less than 50,000. Special districts may include those servicing irrigation, ports, parks and recreation, sanitation, drainage, soil and water conservation, road assessment, etc. When counties have populations greater than 50,000, those municipalities of fewer than 50,000 can be identified using population reports. Other types of small government entities are not as easily identified under this standard, as they are not typically classified by population.

- Small Organization - Section 601(4) defines a small organization as any not-for-profit enterprise that is independently owned and operated and not dominant in its field. Small organizations may include private hospitals, educational institutions, irrigation districts, public utilities, agricultural co-ops, etc. Depending upon state laws, it may be difficult to distinguish whether a small entity is a government or non-profit entity. For example, a water supply entity may be a cooperative owned by its members in one case and in another a publicly chartered small government with the assets owned publicly and officers elected at the same elections as other public officials.

#### **Description of Small Entities to which the Proposed Rule will Apply**

20. The courts have held that the RFA/SBREFEA requires federal agencies to perform a regulatory flexibility analysis of forecast impacts to small entities that are **directly** regulated. In the case of *Mid-Tex Electric Cooperative, Inc., v. Federal Energy Regulatory Commission (FERC)*, FERC proposed regulations affecting the manner in which generating utilities incorporated construction work in progress in their rates. The generating utilities expected to be regulated were large businesses; however, their customers -- transmitting utilities such as electric cooperatives -- included numerous small entities. In this case, the court agreed that FERC simply authorized large electric generators to pass these costs through to their transmitting and retail utility customers, and FERC could therefore certify that small entities were not directly impacted within the definition of the RFA.<sup>6</sup>
21. Similarly, *American Trucking Associations, Inc. v. Environmental Protection Agency (EPA)* addressed a rulemaking in which EPA established a primary national ambient air quality standard for ozone and particulate matter.<sup>7</sup> The basis of EPA's RFA/SBREFEA certification was that this standard did not directly regulate small entities; instead, small entities were indirectly regulated through the implementation of state plans that incorporated the standards. The court found that, while EPA imposed regulation on states, it did not have authority under this rule to impose regulations directly on small entities and therefore small entities were not directly impacted within the definition of the RFA.
22. The Small Business Administration (SBA) in its guidance on how to comply with the RFA recognizes that consideration of indirectly affected small entities is not required by the RFA, but encourages agencies to perform a regulatory flexibility analysis even when the impacts of its regulation are indirect.<sup>8</sup> "If an agency can accomplish its statutory mission in a more cost-effective manner, the Office of Advocacy [of the SBA] believes that it is good public policy to do so. The only way an agency can determine this is if it

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<sup>6</sup> 773 F. 2d 327 (D.C. Cir. 1985).

<sup>7</sup> 175 F. 3d 1027, 1044 (D.C. Cir. 1999).

<sup>8</sup> Small Business Administration, Office of Advocacy. May 2003. A Guide for Government Agencies: How to Comply with the Regulatory Flexibility Act. pg. 20.

does not certify regulations that it knows will have a significant impact on small entities even if the small entities are regulated by a delegation of authority from the federal agency to some other governing body."<sup>9</sup>

23. The regulatory mechanism through which critical habitat protections are enforced is section 7 of the Act, which directly regulates only those activities carried out, funded, or permitted by a Federal agency. By definition, Federal agencies are not considered small entities, although the activities they may fund or permit, may be proposed or carried out by small entities. Given the SBA guidance described above, this analysis considers the extent to which this designation could potentially affect small entities, regardless of whether these entities would be directly regulated by the Service through the proposed rule or by a delegation of impact from the directly regulated entity. The small entities described in this FRFA are not considered to be directly regulated by the Service through section 7.
24. This FRFA focuses on small entities that may bear the regulatory costs quantified in this economic analysis. Although downstream businesses are considered, this analysis considers only those entities whose impact would not be measurably diluted. Specifically, this economic analysis quantifies economic impacts of lynx conservation associated with timber, recreation, public and conservation land management, transportation, and mining.<sup>10</sup> However, as described below, only changes in timber and development activities are expected to measurably impact small entities.
25. Impacts are not expected to small entities in other economic sectors potentially affected by this rule for the following reasons:
  - **Recreation** - Impacts to recreation activity forecast in Section 5 of this report include welfare impacts to individual snowmobilers. As a result of potential restrictions on development of new snowmobile trails, the analysis estimates impacts resulting from potential congestion on existing trails. Impacts quantified in the analysis result from a change in the quality of the experience for the individual recreator, while the level of participation is not expected to change. As no decrease in the level of snowmobiling activity is forecast, impacts to small businesses that support the recreation sector are not anticipated. In addition to snowmobiling welfare impacts, costs of hunter and trapper education efforts considering lynx are forecast. As these costs are expected to be borne by individual recreators and state agencies, impacts to small entities are not anticipated.

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<sup>9</sup> *Ibid.*, pg. 21.

<sup>10</sup> Section 9 of this analysis also quantifies impacts to tribal activities. Tribal lands are being considered for exclusion from critical habitat. Tribes are not considered small entities in this analysis (the U.S. EPA has noted that, "for the purposes of the RFA, States and Tribal governments are not considered small governments but rather as independent sovereigns." EPA. "Regulatory Flexibility Act/Small Business Regulatory Enforcement Fairness Act. What is a "small government?" Accessed at <http://www.epa.gov/sbrefa/government.htm>.)

- **Public Land Management and Conservation Planning** - The analysis of impacts to public land management and conservation planning addresses three types of activity: development of lynx management plans, lynx research and monitoring, and grazing. As discussed in Section 6 of this report, these activities are undertaken by State and Federal agencies. As such, these impacts are not anticipated to affect small entities.
- **Transportation, Utility and Municipal Activities** - Section 7 of this analysis presents the potential impacts to transportation, utility and municipal activities. Impacts to transportation and municipal projects are expected to be borne by the Federal and State agencies undertaking lynx-related modifications to these types of projects, including The Federal Highways Administration (FHWA), Federal Emergency Management Agency (FEMA), United States Army Corps of Engineers (USACE) and State transportation departments. These impacts are therefore not expected to affect small entities. Impacts to dam projects include costs of remote monitoring for lynx that could be required for relicensing of dams, and are expected to be borne by the companies that own the dams. In particular, 14 dams in Minnesota and two in Maine are expected to consider lynx conservation at the time of relicensing.<sup>11</sup> None of these dam projects is operated by a small entity.<sup>12</sup>
- **Mining Activities** - The analysis of impacts to mining activities quantifies impacts to three mining companies in Minnesota, as discussed in detail in Section 8. None of these three mining companies is a small entity, however.<sup>13</sup>

*Description of Timber-Related Small Entities to which the Rule will Apply*

26. The economic analysis applies two scenarios to bound the potential impacts resulting from changes to timber activities, as described in Section 3. Scenario 1, the lower impact scenario, assumes lands subject to existing lynx management plans continue to implement their ongoing lynx conservation efforts. Additionally, a per acre cost of lynx management (i.e., developing lynx management plans and associated surveying and monitoring) is assumed based on the cost of implementing existing plans, and applied broadly across the habitat area that is not currently subject to lynx management plans.

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<sup>11</sup> All 14 hydroelectric dams in Minnesota are owned by the Allete Inc., a parent company of Minnesota Power, and will be due for license renewal in 2025.

<sup>12</sup> All 14 Dams in Minnesota are public utilities owned by ALLETE, Inc., a Parent Company of Minnesota Power generating, transmitting, and distributing electrical power for retail and wholesale customers in the Upper Midwest. One dam in Maine is owned by FPL energy Maine Hydro LLC, a public utility, and one is owned by WPS New England Generation, Inc. (<http://www.wpspower.com/market.asp>).

<sup>13</sup> The small business standard for mining is less than 500 employees. Northshore Mining Company is a subsidiary of Cleveland Cliffs, Inc. which has approximately 4,000 employees according to its website (<http://www.cleveland-cliffs.com/general/>). Information from Dun and Bradstreet indicates Mittal Steel USA Inc. has 20,500 employees. PolyMet is a Canadian company, not subject to the Small Business Administrations size standards.

27. Scenario 2, the higher impact scenario of the timber impact analysis, includes additional costs that could result from compliance with Lynx Conservation Assessment and Strategy (LCAS) pre-commercial thinning guidelines across the entire study area. These additional impacts are estimated based on the assumption that all timberland owners will cease pre-commercial thinning activity. Estimated impacts due to potential restrictions on pre-commercial thinning vary based on regional factors as well as the types of information available to model these impacts. This IRFA estimates impacts to small businesses based on the impacts to timber activities estimated in Scenario 2.
28. Because the primary impacts of lynx conservation estimated in Scenario 2 are restrictions on pre-commercial thinning, the small entities that may be affected are the following industries that conduct pre-commercial thinning activities or rely on associated forest products:
- Timber tract operations (NAICS code 113110)
  - Logging (NAICS code 113310)
  - Support activities for forestry (NAICS code 115310)
  - Wood products manufacturing (NAICS code 321)
  - Pulp mills (NAICS code 332110)
29. In addition, two small Minnesota counties may experience timber impacts resulting from lynx conservation efforts, Koochiching and Lake Counties.<sup>14</sup> These counties manage tax-forfeit lands for timber purposes.

*Description of Development-Related Small Entities to which the Rule will Apply*

30. Section 4 of this analysis quantifies the potential economic impacts to development activities if timber-related lynx conservation standards from the LCAS were to be implemented for development activities across the study area. Impacts in the form of lost option value for development are expected to be borne primarily by landowners in the study area. Some of these landowners may be small businesses, such as builders, developers, or investment companies.
31. While much of this quantified impact is likely to be borne by individual private landowners within the designation, a variety of downstream development-related small entities may also be impacted, including the following:<sup>15</sup>
- Land Subdivision (NAICS code 237210)

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<sup>14</sup> Koochiching County (population 13,907) and Lake County (population 11,156) meet the criteria (fewer than 50,000 residents) for "small entity".

<sup>15</sup> This analysis assumes that because of the geographic scope of the proposed designation, impacts may occur to downstream entities in the development industry because of the absence of substitute sites to absorb lost development opportunities within the proposed critical habitat. That is, because of the large scope of the proposed lynx critical habitat, and the nature of the assumed restrictions on development, development projects that would be precluded are not expected to be undertaken in a substitute location and therefore less development is occurring overall.

- Construction Firms (NAICS Sector 23)
- Landscaping Planning Services (NAICS 541320)
- Landscaping Services (NAICS 561730)

### **Estimate of the Number of Small Entities to which the Proposed Rule will Apply**

32. The Service has determined that the most practical unit of analysis for designating critical habitat for the Canada lynx is in four "units" as described in Section 2 of this economic analysis. This economic analysis further divides the units as described into subunits according to landowner type. However, it is not possible to directly determine the number of firms in each industry sector in each of the subunits because of the geo-political coverage of the business activity data sets, which are available at the county level in each state containing proposed critical habitat.

#### *Estimated Number of Timber-Related Small Entities*

33. This IRFA therefore provides information on the number of small businesses in the timber industry potentially impacted by changes to timber activities at the county level for all counties containing proposed critical habitat. Estimates of the number and type of potentially impacted small businesses in each critical habitat unit are provided in Exhibits C-3 through C-6 and summarized below. Importantly, some portion of these small businesses may not conduct activities within the critical habitat area, or may not engage in activities expected to be restricted by lynx conservation (e.g., pre-commercial thinning or development of all developable lands), and therefore would not be impacted by the rule. These estimates may therefore overstate the number of impacted small entities.
- Unit 1: Maine - 408 small businesses
  - Unit 2: Minnesota - 198 small businesses
  - Unit 3: Northern Rocky Mountains - 680 small businesses
  - Unit 4: North Cascades - 258 small businesses

34. In addition, two small Minnesota counties that manage lands for timber may experience impacts resulting from timber-related lynx conservation efforts, Koochiching and Lake Counties.<sup>16</sup>

#### *Estimated Number of Development-Related Small Entities*

35. Some portion of the affected landowners in the affected study area may be small businesses. Because information is not available to determine what portion of the landowners are small businesses, this analysis provides information on the total number of landowners potentially affected, where such information is available. For Unit 1 and

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<sup>16</sup> Koochiching County (population 13,907) and Lake County (population 11,156) meet the criteria (fewer than 50,000 residents) for "small entity".

Unit 3, the number of “developable” parcels where impacts are expected to occur was used as a proxy for the number of landowners potentially affected by the proposed rule.<sup>17</sup> For Unit 2, however, information on the number of parcels or the number of landowners in the affected areas is not available. Based on this method, there are 2,843 landowners in Units 1 and 3 that are potentially affected in by restrictions on development activities resulting from lynx conservation efforts.

36. For small entities downstream in the development industry, estimates of the number and type of potentially impacted small businesses in each critical habitat unit are provided in Exhibits C-3 through C-5 and summarized below. Importantly, some portion of these small businesses may not conduct activities within the critical habitat area, or may not engage in activities expected to be restricted by lynx conservation, and therefore may not be impacted by the rule. The estimated number of potentially affected small entities is therefore potentially overstated.
- Unit 1: Maine – 1,585 small businesses
  - Unit 2: Minnesota – 1,531 small businesses
  - Unit 3: Northern Rocky Mountains – 3,109 small businesses

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<sup>17</sup> This may overstate the number of landowners because some landowners likely own multiple parcels registered under different names.

EXHIBIT C-4. SMALL BUSINESSES THAT MAY BE AFFECTED BY LYNX CRITICAL HABITAT DESIGNATION UNIT 1: MAINE

NAICS CODE / INDUSTRY	SIZE STANDARD	COUNTY							
		AROOSTOOK	FRANKLIN	PENOBSCOT	PISCATAQUIS	SOMERSET	TOTAL	% SMALL	
INDUSTRIES POTENTIALLY AFFECTED BY CHANGES IN RESIDENTIAL AND COMMERCIAL DEVELOPMENT									
Subsector 236 - Construction of Buildings	\$31.0 million	Total	92	68	260	35	106	561	
		Small	91	65	258	35	103	552	98%
237110: Water and Sewer Line and Related Structures Construction	\$31.0 million	Total	8	0	12	1	6	27	
		Small	8	0	12	1	6	27	100%
237120: Oil and Gas Pipeline and Related Structures Construction	\$31.0 million	Total	0	0	0	0	0	0	
		Small	0	0	0	0	0	0	100%
237130: Power and Communication Line and Related Structures Construction	\$31.0 million	Total	2	1	1	0	0	4	
		Small	2	1	1	0	0	4	100%
237210: Land Subdivision	\$6,500,000	Total	6	6	22	2	2	38	
		Small	6	6	20	2	2	36	95%
237310: Highway, Street, and Bridge Construction	\$31.0 million	Total	16	9	28	5	19	77	
		Small	16	9	26	5	17	73	95%
237990: Other Heavy and Civil Engineering Construction	\$31.0 million	Total	1	0	1	0	2	4	
		Small	1	0	1	0	2	4	100%
Subsector 238 - Specialty Trade Contractors	\$13.0 million	Total	0	94	454	40	181	769	
		Small	0	93	448	40	181	762	99%
541320: Landscape Architecture Services	\$6.5 million	Total	3	7	15	1	3	29	
		Small	3	7	15	1	3	29	100%
561730: Landscaping Services	\$6.5 million	Total	21	7	52	8	11	99	
		Small	21	7	52	8	10	98	99%
Subtotal Development Industry		Total	149	192	845	92	330	1,608	
		Small	148	188	833	92	324	1,585	99%

NAICS CODE / INDUSTRY	SIZE STANDARD	COUNTY							% SMALL
		AROOSTOOK	FRANKLIN	PENOBSCOT	PISCATAQUIS	SOMERSET	TOTAL		
INDUSTRIES POTENTIALLY AFFECTED BY CHANGES IN SILVICULTURAL ACTIVITIES									
113110: Timber Tract Operations	\$6,500,000	Total	2	0	4	2	1	9	
		Small	2	0	4	2	1	9	100%
113310: Logging	500 employees	Total	78	28	74	21	49	250	
		Small	77	28	72	21	47	245	98%
115310: Support Activities for Forestry	\$6,500,000	Total	10	4	16	1	3	34	
		Small	10	4	16	1	3	34	100%
321: Wood Products Manufacturing (Including Sawmills)	500 employees	Total	36	25	41	9	31	142	
		Small	30	23	31	8	24	116	82%
322110: Pulpmills	750 employees	Total	4	0	1	0	0	5	
		Small	3	0	1	0	0	4	80%
Subtotal Timber Industry		Total	130	57	136	33	84	440	
		Small	122	55	124	32	75	408	93%
TOTAL		TOTAL	279	249	981	125	414	2,048	
		SMALL	270	243	957	124	399	1,993	97%

NOTE: Size standards based on SBA's Table of Small Business Size Standards based on NAICS 2002 (<http://www.sba.gov/size/sizetable2002.pdf>). Numbers of businesses are based on Dun and Bradstreet information downloaded in February 2006.

## EXHIBIT C-5. SMALL BUSINESSES THAT MAY BE AFFECTED BY LYNX CRITICAL HABITAT DESIGNATION UNIT 2: MINNESOTA

NAICS CODE / INDUSTRY	SIZE STANDARD	COUNTY						% SMALL
		ST. LOUIS	COOK	LAKE	KOOCHICHING	TOTAL		
INDUSTRIES POTENTIALLY AFFECTED BY CHANGES IN RESIDENTIAL AND COMMERCIAL DEVELOPMENT								
Subsector 236 - Construction of Buildings	\$31.0 million	Total	426	24	37	28	515	
		Small	414	23	37	27	501	97%
237110: Water and Sewer Line and Related Structures Construction	\$31.0 million	Total	20	2	1	2	25	
		Small	18	2	1	2	23	92%
237120: Oil and Gas Pipeline and Related Structures Construction	\$31.0 million	Total	0	0	0	0	0	
		Small	0	0	0	0	0	100%
237130: Power and Communication Line and Related Structures Construction	\$31.0 million	Total	2	0	0	0	2	
		Small	2	0	0	0	2	100%
237210: Land Subdivision	\$6,500,000	Total	49	1	2	1	53	
		Small	44	1	2	1	48	91%
237310: Highway, Street, and Bridge Construction	\$31.0 million	Total	34	3	1	0	38	
		Small	34	3	1	0	38	100%
237990: Other Heavy and Civil Engineering Construction	\$31.0 million	Total	3	0	0	0	3	
		Small	3	0	0	0	3	100%
Subsector 238 - Specialty Trade Contractors	\$13.0 million	Total	718	35	44	37	834	
		Small	703	34	44	37	818	98%
541320: Landscape Architecture Services	\$6.5 million	Total	28	1	1	0	30	
		Small	27	1	1	0	29	97%
561730: Landscaping Services	\$6.5 million	Total	59	2	6	3	70	
		Small	58	2	6	3	69	99%
Subtotal Development Industry		Total	1339	68	92	71	1,570	
		Small	1303	66	92	70	1,531	98%

NAICS CODE / INDUSTRY	SIZE STANDARD	COUNTY						
		ST. LOUIS	COOK	LAKE	KOOCHICHING	TOTAL	% SMALL	
INDUSTRIES POTENTIALLY AFFECTED BY CHANGES IN SILVICULTURAL ACTIVITIES								
113110: Timber Tract Operations	\$6,500,000	Total	2	0	1	1	4	
		Small	2	0	1	1	4	100%
113310: Logging	500 employees	Total	71	8	18	29	126	
		Small	71	8	18	29	126	100%
115310: Support Activities for Forestry	\$6,500,000	Total	13	5	0	1	19	
		Small	13	5	0	1	19	100%
321: Wood Products Manufacturing (Including Sawmills)	500 employees	Total	29	6	7	11	53	
		Small	25	6	5	10	46	87%
322110: Pulpmills	750 employees	Total	3	0	1	0	4	
		Small	3	0	0	0	3	75%
		Small	123	1	3	12	139	99%
Timber Industry Subtotal		Total	118	19	27	42	206	
		Small	114	19	24	41	198	96%
TOTAL		TOTAL	1,457	87	119	113	1,776	
		SMALL	1,417	85	116	111	1,729	97%

NOTE: Size standards based on SBA's Table of Small Business Size Standards based on NAICS 2002 (<http://www.sba.gov/size/sizetable2002.pdf>). Numbers of businesses are based on Dun and Bradstreet information downloaded in February 2006.

EXHIBIT C-6. SMALL BUSINESSES THAT MAY BE AFFECTED BY LYNX CRITICAL HABITAT DESIGNATION UNIT 3: NORTHERN ROCKIES

NAICS CODE / INDUSTRY	SIZE STANDARD	COUNTY												
		LINCOLN	FLATHEAD	GLACIER	LAKE	MISSOULA	GRANITE	TETON	LEWIS AND CLARK	POWELL	BOUNDARY (ID)	TOTAL	% SMALL	
INDUSTRIES POTENTIALLY AFFECTED BY CHANGES IN RESIDENTIAL AND COMMERCIAL DEVELOPMENT														
Subsector 236 - Construction of Buildings	\$31.0 million	Total	62	419	20	66	257	9	9	144	8	33	1,027	
		Small	60	416	20	66	254	9	9	141	8	32	1,015	99%
237110: Water and Sewer Line and Related Structures Construction	\$31.0 million	Total	9	25	4	5	13	0	2	8	1	4	71	
		Small	9	25	4	5	13	0	2	8	1	4	71	100%
237120: Oil and Gas Pipeline and Related Structures Construction	\$31.0 million	Total	2	0	0	2	0	0	0	0	0	0	4	
		Small	2	0	0	2	0	0	0	0	0	0	4	100%
237130: Power and Communication Line and Related Structures Construction	\$31.0 million	Total	0	1	0	0	0	0	0	1	0	0	2	
		Small	0	1	0	0	0	0	0	1	0	0	2	100%
237210: Land Subdivision	\$6,500,000	Total	6	41	2	5	31	0	0	24	0	1	110	
		Small	6	37	2	5	29	0	0	22	0	1	102	93%
237310: Highway, Street, and Bridge Construction	\$31.0 million	Total	12	32	5	7	30	1	1	15	1	4	108	
		Small	11	31	5	7	27	0	1	15	1	4	102	94%
237990: Other Heavy and Civil Engineering Construction	\$31.0 million	Total	1	3	0	0	0	2	0	1	0	0	7	
		Small	1	3	0	0	0	2	0	1	0	0	7	100%
Subsector 238 - Specialty Trade Contractors	\$13.0 million	Total	90	592	39	130	436	6	17	264	20	51	1,645	
		Small	88	581	39	130	428	6	17	254	20	50	1,613	98%
541320: Landscape Architecture Services	\$6.5 million	Total	3	28	0	1	13	0	0	5	0	1	51	
		Small	3	27	0	1	13	0	0	5	0	1	50	98%
561730: Landscaping Services	\$6.5 million	Total	7	67	0	14	41	1	5	0	2	6	143	
		Small	7	67	0	14	41	1	5	0	2	6	143	100%

NAICS CODE / INDUSTRY	SIZE STANDARD	COUNTY											
		LINCOLN	FLATHEAD	GLACIER	LAKE	MISSOULA	GRANITE	TETON	LEWIS AND CLARK	POWELL	BOUNDARY (ID)	TOTAL	% SMALL
Subtotal Development Industry	Total	192	1208	70	230	821	19	34	462	32	100	3,168	
	Small	187	1188	70	230	805	18	34	447	32	98	3,109	98%
INDUSTRIES POTENTIALLY AFFECTED BY CHANGES IN SILVICULTURAL ACTIVITIES													
113110: Timber Tract Operations	\$6,500,000	Total	1	2	0	2	4	0	0	0	0	9	
		Small	1	2	0	2	4	0	0	0	0	9	100%
113310: Logging	500 employees	Total	63	87	1	13	57	17	0	9	13	18	278
		Small	63	86	1	13	56	17	0	9	13	17	275
115310: Support Activities for Forestry	\$6,500,000	Total	57	59	9	13	78	5	6	25	3	6	261
		Small	57	59	9	13	78	5	6	25	3	6	261
321: Wood Products Manufacturing (Including Sawmills)	500 employees	Total	25	59	2	12	27	2	3	12	4	13	159
		Small	21	52	2	11	21	1	2	11	4	9	134
322110: Pulpmills	750 employees	Total	0	0	0	0	1	0	0	0	0	0	1
		Small	0	0	0	0	1	0	0	0	0	0	1
Timber Industry Subtotals		Total	146	207	12	40	167	24	9	46	20	37	708
		Small	142	199	12	39	160	23	8	45	20	32	680
TOTAL		TOTAL	338	1,415	82	270	988	43	43	508	52	137	3,876
		SMALL	329	1,387	82	269	965	41	42	492	52	130	3,789

NOTE: Size standards based on SBA's Table of Small Business Size Standards based on NAICS 2002 (<http://www.sba.gov/size/sizetable2002.pdf>). Numbers of businesses are based on Dun and Bradstreet information downloaded in February 2006.

EXHIBIT C-7. SMALL BUSINESSES THAT MAY BE AFFECTED BY LYNX CRITICAL HABITAT DESIGNATION UNIT 4: NORTH CASCADES

NAICS CODE / INDUSTRY	SMALL BUSINESS SIZE STANDARD		COUNTY				
			OKANOGAN	SKAGIT	CHELAN	TOTAL	% SMALL
113110: Timber Tract Operations	\$6,500,000	Total	1	5	2	8	100%
		Small	1	5	2	8	
113310: Logging	500 employees	Total	31	34	17	82	99%
		Small	31	33	17	81	
115310: Support Activities for Forestry	\$6,500,000	Total	67	8	27	102	100%
		Small	67	8	27	102	
321: Wood Products Manufacturing (Including Sawmills)	500 employees	Total	14	45	20	79	84%
		Small	11	38	17	66	
322110: Pulpmills	750 employees	Total	0	0	1	1	100%
		Small	0	0	1	1	
TOTALS		TOTAL	113	92	67	272	95%
		SMALL	110	84	64	258	

NOTE: Size standards based on SBA's Table of Small Business Size Standards based on NAICS 2002 (<http://www.sba.gov/size/sizetable2002.pdf>). Numbers of businesses are based on Dun and Bradstreet information downloaded in February 2006, except for Okanogan County NAICS 445290 downloaded in June 2006.

C.1.2.4 Description of the projected reporting, recordkeeping, and other compliance requirements of the rule

37. Exhibits C-4 through C-7 provide evidence that, given the rural nature of the proposed designation and the nature of the affected activities, most of the potentially affected entities (between 75 and 100 percent) in these regions are small. This IRFA therefore assumes that all impacted entities are small.

*Estimated Economic Impacts on Timber-Related Small Entities*

38. For timber activities, under Scenario 2 as described above, impacts to small entities include the cost of developing lynx management plans (along with associated species surveying and monitoring), and precluding pre-commercial thinning in the critical habitat area. The annualized value of these activities is forecast to be \$23.4 million (assuming a three percent discount rate) across the entire proposed critical habitat. Forestry-related earnings across counties in the study area were \$454 million in 2003. Thus, potential reductions in revenue from changes to timber activities resulting from lynx conservation efforts represent approximately five percent of total forestry-related earnings by businesses in all counties containing proposed critical habitat.<sup>18</sup>
39. These estimated impacts to timber activities are distributed across the critical habitat area by subunit as described in Appendix F.2 of this analysis. This analysis does not estimate impacts as a percent of earnings on a subunit level, as information on forestry-related earnings is only available at the county level. However, Exhibit C-7 describes impacts of lynx conservation efforts on forestry earnings for all counties containing critical habitat in each of the proposed units.

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<sup>18</sup> Forestry related earnings represents combined earnings for the Forestry and Logging and the Wood Products Manufacturing sectors. BEA data for 2003 accessed at <http://www.bea.gov/region/reis>.

## EXHIBIT C-7. IMPACTS ON SMALL ENTITIES BY UNIT

IMPACTS OF LYNX CONSERVATION ON SMALL ENTITIES IN THE TIMBER INDUSTRY			
SUBUNIT	TOTAL FORESTRY-RELATED EARNINGS IN COUNTIES CONTAINING CRITICAL HABITAT	ESTIMATED ECONOMIC IMPACT TO SMALL TIMBER-RELATED ENTITIES (SCENARIO 2)	IMPACTS AS A PERCENT OF TOTAL EARNINGS
Unit 1: Maine	\$191 million	\$10.8 million	5.6 %
Unit 2: Minnesota	\$52.7 million	\$5.11 million	9.7 %
Unit 3: Northern Rocky Mountains	\$195 million	\$6.03 million	3.1 %
Unit 4: Northern Cascades	\$14.6 million	\$1.42 million	9.7 %
Notes: Estimates may not calculate exactly due to rounding. Sources: Forestry related earnings represents combined earnings for the Forestry and Logging and the Wood Products Manufacturing sectors. BEA data for 2003 accessed at <a href="http://www.bea.gov/bea/regional/reis">http://www.bea.gov/bea/regional/reis</a> . Derivation of impacts by Unit is detailed in Appendix D, and summarized by subunit in Appendix F.2.			

40. These impacts of precluding pre-commercial thinning do not represent an additional capital cost of operations to the impacted entities. Instead, they represent a reduction in the demand for the services provided by these entities as a result of restrictions on particular timber management activities. It is unclear how the impact of implementing lynx conservation may affect the profit margins of individual forest-related businesses. That is, while the estimated percent impact on earnings represents a decrease in the volume of economic activity, how this change may actually manifest in the forestry industry, whether in decreased employment, decreased number of businesses, or foregone revenue or profit per business, is unknown.

*Estimated Economic Impacts on Development-Related Small Entities*

41. For development activities, forecast impacts are related to compliance with timber-related LCAS conservation standards. Impacts to development activities are estimated by calculating how many developable acres might be affected if timber-related LCAS thresholds for habitat disturbance were implemented across the study area, then applying per-acre development values (valuing the option to develop the land) to get the total lost option value. Based on these steps, the analysis forecasts annualized impacts to development of \$23.1 million (assuming a three percent discount rate) across the entire proposed critical habitat.
42. Total development impacts by unit are presented in Exhibit C-8. Impacts to the identified downstream development-related small businesses are not estimated as the nature of each individual business (in terms of whether it conducts activities within the study area and whether any of its activities taking place in the study area will be restricted by lynx habitat conservation) is uncertain. The distribution of impacts to development activities is illustrated in Section 4 and Appendix G.

## EXHIBIT C-8. IMPACTS ON SMALL DEVELOPMENT ENTITIES BY UNIT

IMPACTS OF LYNX CONSERVATION ON SMALL ENTITIES IN THE DEVELOPMENT INDUSTRY	
SUBUNIT	ESTIMATED ECONOMIC IMPACT TO SMALL DEVELOPMENT-RELATED ENTITIES (HIGH ESTIMATE)
Unit 1: Maine	\$75,800
Unit 2: Minnesota	\$21.3 million
Unit 3: Northern Rocky Mountains	\$1.73 million

C.1.2.5 A description of steps the agency has taken to minimize the significant adverse economic impact on small entities

43. The Service identified four units as potential critical habitat for the lynx. This analysis describes subunits by landowner type to provide economic impact information at a more refined geographic scale. Specifically, 27 subunits were proposed for designation of critical habitat and seven subunits were considered for exclusion from critical habitat by the Service. An alternative to the Proposed Rule (designating the land area of the 27 proposed subunits for critical habitat) was the designation of all 34 subunits. In addition, section 4(b)(2) of the Act allows the Service to exclude additional areas proposed for designation based on economic impact and other relevant impacts. As a result, the designation of multiple combinations of subunits were also available to the Service as alternatives.
44. A reduction in the size of critical habitat reduces the number of small businesses potentially affected. The extent to which the economic impact to small entities is reduced depends on how many, and which, subunits or portions of subunits of critical habitat are excluded. A description of the final critical habitat, including which areas of proposed critical habitat were excluded and for what reason, is included in the final rule.

**C.2 POTENTIAL IMPACTS TO THE ENERGY INDUSTRY**

45. Pursuant to Executive Order No. 13211, “Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use,” issued May 18, 2001, Federal agencies must prepare and submit a “Statement of Energy Effects” for all “significant energy actions.” The purpose of this requirement is to ensure that all Federal agencies “appropriately weigh and consider the effects of the Federal Government’s regulations on the supply, distribution, and use of energy.”<sup>19</sup> The OMB’s guidance for implementing this Executive Order outlines nine outcomes that may constitute “a significant adverse effect” as compared to a scenario without the regulatory action under consideration:

- Reductions in crude oil supply in excess of 10,000 barrels per day (bbls);
- Reductions in fuel production in excess of 4,000 barrels per day;
- Reductions in coal production in excess of 5 million tons per year;
- Reductions in natural gas production in excess of 25 million Mcf per year;
- Reductions in electricity production in excess of 1 billion kilowatts-hours per year or in excess of 500 megawatts of installed capacity;
- Increases in energy use required by the regulatory action that exceed the thresholds above;
- Increases in the cost of energy production in excess of one percent;
- Increases in the cost of energy distribution in excess of one percent; or
- Other similarly adverse outcomes.<sup>20</sup>

As none of these criteria is relevant to this analysis, energy-related impacts associated with lynx conservation activities within the study area are not expected.

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<sup>19</sup> Memorandum For Heads of Executive Department Agencies, and Independent Regulatory Agencies, Guidance For Implementing E.O. 13211, M-01-27, Office of Management and Budget, July 13, 2001, <http://www.whitehouse.gov/omb/memoranda/m01-27.html>.

<sup>20</sup> Ibid.