

1 **5.15 Irreversible and Irretrievable Commitments of Resources**
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3 Irreversible and irretrievable commitments of resources (NEPA; 42 USC 4321) that would likely
4 result from implementing any of the Alternative Groups or the No Action Alternative are addressed in this
5 section. An irreversibly committed or irretrievable resource is one that is irreplaceably consumed and is
6 non-renewable, is in limited supply, or cannot be replenished.
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8 Implementation of any of the alternatives would result in the irretrievable use of fossil fuels in
9 construction activities, transport of materials and waste, and treatment processes. Bentonite clay, which is
10 a limited resource, would also be committed. Although steel is not in limited supply, that used in drums
11 and rebar would be essentially irretrievable. Land areas used for disposal facilities would also be
12 irretrievably committed. In addition, after a few hundred years following disposal, the vadose zone
13 surrounding disposal areas and groundwater beneath the Hanford Site to which contaminants travel would
14 be irretrievably committed. Depending on concentrations at the time and the down-gradient location of
15 interest (generally south-easterly to north-westerly from the 200 Areas towards the Columbia River), the
16 slow entry of long-lived mobile radionuclides into groundwater might constitute a continuing (thousands
17 of years) commitment of a water resource. Depending on the location and time of interest, concentrations
18 of nuclides in groundwater might be such that it would be necessary to place some restrictions on
19 groundwater usage. When the groundwater reaches the Columbia River and is diluted by the large flow
20 of the river, the contamination levels will fall well below those for which restricted use would be
21 necessary to comply with the National Primary Drinking Water Regulations (40 CFR 141).
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23 The quantities of non-renewable resources that would be irreversibly or irretrievably committed are
24 listed in Table 5.62.

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Table 5.146. Irreversible and Irretrievable Resource Commitments by Alternative Group with ILAW

Resource	Diesel^(b)	Gasoline	Propane	Bentonite Clay	Steel^(c)	Land
Units^(a)	m³	m³	t	t	t	ha
Alternative Group A						
Hanford Only	132,900	260	12,700	13,900	1,720	169
Lower Bound	132,900	260	12,700	13,900	1,870	170
Upper Bound	133,700	270	19,300	18,200	2,280	178
Alternative Group B						
Hanford Only	136,600	340	23,500	33,600	1,800	187
Lower Bound	136,700	340	23,500	33,600	1,950	189
Upper Bound	140,600	430	38,300	57,600	2,380	210
Alternative Group C						
Hanford Only	65,900	260	12,700	13,900	1,720	151
Lower Bound	65,900	260	12,700	13,900	1,870	152
Upper Bound	66,700	270	19,300	18,200	2,280	160
Alternative Group D						
Hanford Only	65,900	260	18,800	13,900	1,710	150-155
Lower Bound	65,900	260	20,300	13,900	1,870	150-155
Upper Bound	66,700	270	27,800	18,200	2,280	150-155
Alternative Group E						
Hanford Only	65,900	260	18,800	12,800	1,710	150-155
Lower Bound	65,900	260	20,300	13,900	1,870	150-155
Upper Bound	66,700	270	27,800	18,200	2,280	150-155
No Action Alternative						
Hanford Only	188,600	48	3,560	0	59,100	267 ^(d)
Lower Bound	188,700	50	3,560	0	59,200	275 ^(d)
<p>(a) Conversion factors: 1 m³ = about ≈ 260 gal; 1 m³ = about 1.3 yd³; and 1 t (tonne) = about 1.1 ton.</p> <p>(b) Includes 120,100 m³ for ILAW in Alternative Groups A and B, 53,100 m³ for ILAW in Alternative Groups C, D, and E, and 183,400 m³ for ILAW in the No Action Alternative.</p> <p>(c) Includes 1000 t for ILAW in Alternative Groups A-E and 33,200 t for ILAW in the No Action Alternative.</p> <p>(d) Includes land committed to storage of waste at CWC.</p>						

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