



# United States Department of the Interior

BUREAU OF LAND MANAGEMENT  
Washington, DC 20240  
<http://www.blm.gov>

In reply refer to:  
1610-5.G.1.4

AUG 24 2012

September, 2012

Dear Reader:

Enclosed is the Proposed Land Use Plan Amendments (PRMP Amendments) for Allocation of Oil Shale and Tar Sands Resources on Lands Administered by the Bureau of Land Management (BLM) in Colorado, Utah, and Wyoming and Final Environmental Impact Statement (FEIS). The BLM prepared the PRMP Amendments/FEIS in consultation with cooperating agencies taking into account public comments received during this planning effort. In 2008, the BLM amended 10 land use plans in Colorado, Utah, and Wyoming to make public lands available for potential leasing of oil shale and tar sands resources. The BLM has decided to reconsider the 2008 allocations. Specifically, the BLM, through its planning process, has taken a hard look at whether it is appropriate for approximately 2,000,000 acres to remain available for potential development of oil shale and approximately 431,000 acres of public land to remain available for potential development of tar sands.

This PRMP Amendments and FEIS have been developed in accordance with the National Environmental Policy Act of 1969, as amended, and the Federal Land Policy and Management Act of 1976, as amended. The PRMP Amendments are based largely on Alternative 2(b), the preferred alternative in the Draft Programmatic Environmental Impact Statement (DPEIS) and Possible Land Use Plan Amendments for Allocation of Oil Shale and Tar Sands Resources on Lands Administered by the BLM in Colorado, Utah, and Wyoming (DRMP Amendments/DEIS), which was released on February 3, 2012, but also includes some elements that appeared in other Alternatives in the DPEIS. The PRMP Amendments/FEIS contains the Proposed Plan Amendments, a summary of changes made between the DRMP/DEIS and PRMP Amendments/FEIS, discussion of possible environmental consequences associated with the Proposed Plan Amendments, a summary of the written comments received during the public review period for the DRMP/DEIS, and responses to those comments.

Publication of a Notice of Availability (NOA) of a FEIS does not trigger a formal public comment period. An agency, however, may choose to review any comments submitted following the publication of a NOA of a FEIS and use them to inform the agency's Record of Decision (ROD). Those individuals wishing to submit comments are asked to do so through the project website (<http://ostseis.anl.gov>). Individuals should note that the BLM will consider such comments only to the extent practicable and will not respond to comments individually.

Pursuant to the BLM's planning regulations at 43 CFR 1610.5-2, any person who participated in the planning process for this PRMP and has an interest which is or may be adversely affected by the proposed planning decisions may protest approval of the planning decisions within 30 days from date the Environmental Protection Agency (EPA) publishes the Notice of Availability in the Federal Register. For further information on filing a protest, please see the accompanying protest regulations in the pages that follow (labeled as Attachment # 1). The regulations specify the required elements of your protest. Take care to document all relevant facts. As much as possible, reference or cite the planning documents or available planning records (e.g. meeting minutes or summaries, correspondence, etc.) associated with your protest.

Emailed and faxed protests will not be accepted as valid protests unless the protesting party also provides the original letter by either regular or overnight mail postmarked by the close of the protest period. Under these conditions, the BLM will consider the emailed or faxed protest as an advance copy and will afford it full consideration. If you wish to provide the BLM with such advance notification, please direct faxed protests to the attention of Brenda Hudgens-Williams, BLM protest expeditor at 202-245-0028, and emailed protests to: Brenda Hudgens-Williams, email address [bhudgens@blm.gov](mailto:bhudgens@blm.gov).

All protests, including the follow-up letter to emails or faxes, must be in writing and mailed to one of the following addresses:

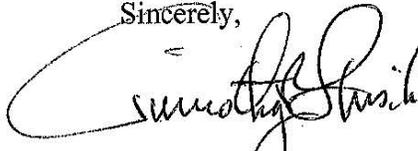
<u>Regular Mail:</u>	<u>Overnight Mail:</u>
Director (210)	Director (210)
Attn: Brenda Hudgens-Williams	Attn: Brenda Hudgens-Williams
P.O. Box 71383	20 M Street SE, Room 2134LM
Washington, D.C. 20024-1383	Washington, D.C. 20003

Before including your address, phone number, email address, or other personal identifying information in your protest, be advised that your entire protest – including your personal identifying information – may be made publicly available at any time. While you can ask us in your protest to withhold from public review your personal identifying information, we cannot guarantee that we will be able to do so.

The BLM Director will make every attempt to promptly render a decision on each protest. The decision will be in writing and will be sent to the protesting party by certified mail, return receipt requested. The decision of the BLM Director shall be the final decision of the Department of the Interior on each protest. Responses to protest issues will be compiled and formalized in a Director's Protest Resolution Report made available following issuance of the decisions.

Upon resolution of all land use plan protests, the BLM will issue an Approved RMP and ROD. The Approved RMP and ROD will be mailed or made available electronically to all who participated in the planning process and will be available to all parties through the "Planning" page of the BLM national website (<http://www.blm.gov/planning>), on the project website (<http://ostseis.anl.gov>) or by mail upon request.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael D. Nedd". The signature is written in a cursive style with a large, sweeping initial "M".

for Michael D. Nedd,  
Assistant Director  
Minerals and Realty Management

## Protest Regulations

[CITE: 43CFR1610.5-2]

TITLE 43--PUBLIC LANDS: INTERIOR  
CHAPTER II--BUREAU OF LAND MANAGEMENT, DEPARTMENT OF THE INTERIOR  
PART 1600--PLANNING, PROGRAMMING, BUDGETING--Table of Contents  
Subpart 1610--Resource Management Planning  
Sec. 1610.5-2 Protest procedures.

- (a) Any person who participated in the planning process and has an interest which is or may be adversely affected by the approval or amendment of a resource management plan may protest such approval or amendment. A protest may raise only those issues which were submitted for the record during the planning process.
  - (1) The protest shall be in writing and shall be filed with the Director. The protest shall be filed within 30 days of the date the Environmental Protection Agency published the notice of receipt of the final environmental impact statement containing the plan or amendment in the Federal Register. For an amendment not requiring the preparation of an environmental impact statement, the protest shall be filed within 30 days of the publication of the notice of its effective date.
  - (2) The protest shall contain:
    - (i) The name, mailing address, telephone number and interest of the person filing the protest;
    - (ii) A statement of the issue or issues being protested;
    - (iii) A statement of the part or parts of the plan or amendment being protested;
    - (iv) A copy of all documents addressing the issue or issues that were submitted during the planning process by the protesting party or an indication of the date the issue or issues were discussed for the record; and
    - (v) A concise statement explaining why the State Director's decision is believed to be wrong.
  - (3) The Director shall promptly render a decision on the protest.
- (b) The decision shall be in writing and shall set forth the reasons for the decision. The decision shall be sent to the protesting party by certified mail, return receipt requested. The decision of the Director shall be the final decision of the Department of the Interior.

FES 12-41

# **Proposed Land Use Plan Amendments for Allocation of Oil Shale and Tar Sands Resources on Lands Administered by the Bureau of Land Management in Colorado, Utah, and Wyoming and Final Programmatic Environmental Impact Statement**

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November 2012

*Volume 1: Chapters 1, 2, and 3*

U.S. Department of the Interior  
Bureau of Land Management



## BLM Mission Statement

It is the mission of the Bureau of Land Management to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations.

BLM/WO/GI-12/013+3000

DOI No. FES 12-41

**Proposed Land Use Plan Amendments (PRMP Amendments) for Allocation of Oil Shale and Tar Sands Resources on Lands Administered by the Bureau of Land Management in Colorado, Utah, and Wyoming and Final Environmental Impact Statement (FEIS)**

**Lead Agency:** U.S. Department of the Interior, Bureau of Land Management

**Type of Action:** Final, Administrative

**Cooperating Agencies:**

National Park Service	Garfield County, Colorado
U.S. Fish and Wildlife Service	Duchesne County, Utah
State of Utah	Carbon County, Utah
State of Wyoming	Uintah County, Utah
City of Rifle, Colorado	Lincoln County, Wyoming
Grand County, Utah	Sweetwater County, Wyoming
State of Colorado, Department of Natural Resources and Department of Health and the Environment	Coalition of Local Governments

**Location:** Northwestern Colorado, eastern Utah, and southwestern Wyoming

**Abstract:** Under the Proposed Plan/Final PEIS, the Bureau of Land Management (BLM) proposes to amend 10 land use plans in Colorado, Utah, and Wyoming to describe those areas that will be open and those that will be closed to application for commercial leasing, exploration, and development of oil shale and tar sands resources. Specifically, the proposed Plan/Final PEIS will decrease the acreage in Colorado, Utah, and Wyoming currently open for application for future leasing and development of oil shale or tar sands. The BLM intends to maintain focus on research, development, and demonstration (RD&D) projects in order to obtain more information about possible development technologies and their environmental consequences before committing to broad-scale development. Four alternatives (two of which include subalternatives) were considered in the PEIS. As a result of public comments and upon further review, corrections/revisions were made to the alternatives, and changes were made from what was presented as the Preferred Alternative in the Draft PEIS. These changes have resulted in a Proposed Plan Amendment (composed of Alternative 2(b) from the DPEIS, as well as certain elements of the other alternatives) that references new acreage figures. Under the Proposed Plan, approximately 676,967 acres would be open for application for future leasing and development of oil shale and approximately 129,567 acres would be open for potential tar sands leasing and development, but only for RD&D leases. The BLM would issue a commercial lease only when a lessee satisfies the conditions of its RD&D lease and the regulations at 43 CFR Subpart 3926 for conversion to a commercial lease. The preferential right acreage, if any, which would be included in the converted lease, would be specified in the RD&D lease. The Proposed Plan/Final PEIS is designed to ensure that oil shale and tar sands technologies can operate at environmentally acceptable levels before commercial development is authorized.

On the basis of the analysis in this PEIS, the BLM has determined that there is no environmental impact associated with amending land use plans to make lands available for application for commercial leasing, but there may be impacts on land values. While the BLM has determined that there are no environmental impacts associated with the amendment of land use plans, it intends to establish a commercial leasing program to facilitate future development and has

included a programmatic-level analysis of the potential impact of oil shale and tar sands development technologies as they are currently known.

**Contacts:** For further information about this PEIS, you may contact Sherri Thompson, Project Manager, BLM Colorado State Office, 2850 Youngfield Street, Lakewood, Colorado 80215-7093; (303) 239-3758.

**Responsible Official:**

Michael Nedd  
BLM Assistant Director,  
Minerals, Realty and Resource Protection  
1849 C Street NW  
Washington, D.C. 20240

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## NOTATION

The following is a list of acronyms and abbreviations, chemical names, and units of measure used in this document. Some acronyms used only in tables may be defined only in those tables.

### GENERAL ACRONYMS AND ABBREVIATIONS

ACEC	Area of Critical Environmental Concern
AGR	aboveground retort
AIRFA	American Indian Religious Freedom Act
AMSO	American Shale Oil, LLC
ANFO	ammonium nitrate and fuel oil
APE	Area of Potential Effects
API	American Petroleum Institute
APLIC	Avian Power Line Interaction Committee
APP	Avian Protection Plan
AQRV	air quality–related value
ARCO	Atlantic Richfield Company
ATP	Alberta Taciuk Process
ATSDR	Agency for Toxic Substances and Disease Registry
AWEA	American Wind Energy Association
AZGFD	Arizona Game and Fish Department
BA	biological assessment
BCD	barrels per calendar day
BLM	Bureau of Land Management
BMP	best management practice
BO	biological opinion
BOR	U.S. Bureau of Reclamation
BPA	Bonneville Power Administration
BSD	barrels per stream day
BTEX	benzene, toluene, ethylbenzene, and xylenes
CAA	Clean Air Act
CAPP	Canadian Association of Petroleum Producers
CARB	California Air Resources Board
CASTNET	Clean Air Status and Trends Network
CBOSC	Cathedral Bluffs Oil Shale Company
CCR™	Conduction, Convection, and Reflux
CCW	coal combustion waste
CDC	Centers for Disease Control and Prevention
CDOT	Colorado Department of Transportation
CDOW	Colorado Division of Wildlife (now Colorado Parks and Wildlife)

CDPHE	Colorado Department of Public Health and Environment
CEQ	Council on Environmental Quality
CFR	<i>Code of Federal Regulations</i>
CHAT	Critical Habitat Assessment Tool
CHL	combined hydrocarbon lease
CIRA	Cooperative Institute for Research in the Atmosphere
CNHP	Colorado Natural Heritage Program
COGCC	Colorado Oil and Gas Conservation Commission
CPC	Center for Plant Conservation
CPW	Colorado Parks and Wildlife (formerly Colorado Division of Wildlife)
CRBSCF	Colorado River Basin Salinity Control Forum
CRD	Comment Response Document
CRSCP	Colorado River Salinity Control Program
CRWQIP	Colorado River Water Quality Improvement Program
CSS	cyclic steam stimulation
CSU	Controlled Surface Use
CWA	Clean Water Act
CWCB	Colorado Water Conservation Board
CWS	Canadian Wildlife Service
DoD	U.S. Department of Defense
DOE	U.S. Department of Energy
DOI	U.S. Department of the Interior
DOL	U.S. Department of Labor
DOT	U.S. Department of Transportation
DRMS	Division of Reclamation Mining & Safety (Colorado)
DRUA	Dispersed Recreation Use Area
EA	environmental assessment
EGL	EGL Resources, Inc.
EIA	Energy Information Administration
E-ICP	bare electrode in situ conversion process
EIS	environmental impact statement
EMF	electric and magnetic field
E.O.	Executive Order
EOR	enhanced oil recovery
EPA	U.S. Environmental Protection Agency
EPRI	Electric Power Research Institute
EQIP	Environmental Quality Incentives Program
ESA	Endangered Species Act of 1973
FAA	Federal Aviation Administration
FLPMA	Federal Land Policy and Management Act of 1976
FONSI	Finding of No Significant Impact
FR	<i>Federal Register</i>

FTE	full-time equivalent
FY	fiscal year
GCR	gas combustion retort
GHG	greenhouse gas
GIS	geographic information system
GPO	Government Printing Office
GSENM	Grand Staircase–Escalante National Monument
HAP	hazardous air pollutant
HAZCOM	hazard communication
HFC	hydrofluorcarbon
HMA	Herd Management Area
HMMH	Harris Miller Miller & Hanson, Inc.
I-70	Interstate 70
IARC	International Agency for Research on Cancer
ICP	in situ conversion process
IEC	International Electrochemical Commission
IM	Instructional Memorandum
IPPC	Intergovernmental Panel on Climate Change
ISA	Instant Study Area
ISWS	Illinois State Water Survey
IUCNNR	International Union for Conservation of Nature and Natural Resources
JMH CAP	Jack Morrow Hills Coordinated Activity Plan
KOP	key observation point
KSLA	Known Sodium Leasing Area
LAU	Lynx Analysis Unit
L <sub>dn</sub>	day-night average sound level
L <sub>eq</sub>	equivalent sound pressure level
LETG	Laramie Energy Technology Center
LM	Office of Legacy Management (DOE)
LPG	liquefied petroleum gas
LWC	lands having wilderness characteristics
M&I	municipal and industrial
MFP	Management Framework Plan
MIG, Inc.	Minnesota IMPLAN Group, Inc.
MIS	modified in situ recovery
MLA	Mineral Leasing Act
MMC	Multi Minerals Corporation
MMTA	Mechanically Mineable Trona Area
MOU	Memorandum of Understanding

MPCA	Minnesota Pollution Control Agency
MSDS	Material Safety Data Sheet
MSHA	Mine Safety and Health Administration
MSL	mean sea level
MTR	military training route
NAAQS	National Ambient Air Quality Standards
NADP	National Atmospheric Deposition Program
NAGPRA	Native American Graves Protection and Repatriation Act
NCA	National Conservation Area
NCDC	National Climate Data Center
NEC	National Electric Code
NEPA	National Environmental Policy Act of 1969
NESHAP	National Emission Standards for Hazardous Air Pollutants
NFS	National Forest Service
NHPA	National Historic Preservation Act of 1966
NLCS	National Landscape Conservation System
NMFS	National Marine Fisheries Service
NNHP	Nevada Natural Heritage Program
NOA	Notice of Availability
NOI	Notice of Intent
NORM	naturally occurring radioactive materials
NOSR	Naval Oil Shale Reserves
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NRA	National Recreation Area
NRHP	<i>National Register of Historic Places</i>
NSC	National Safety Council
NSO	No Surface Occupancy
NTSA	National Trails System Act
NTT	National Technical Team
NWCC	National Wind Coordinating Committee
NWR	National Wildlife Refuge
OHV	off-highway vehicle
OOSI	Occidental Oil Shale, Inc.
OPEC	Organization of Petroleum Exporting Countries
OSEC	Oil Shale Exploration Company
OSEW/SPP	Oil Sands Expert Workgroup/Security and Prosperity Partnership
OSHA	Occupational Safety and Health Administration
OSTS	oil shale and tar sands
OTA	Office of Technology Assessment
PA	Programmatic Agreement
PADD	Petroleum Administration for Defense District
PAH	polycyclic aromatic hydrocarbon

PCB	polychlorinated biphenyl
PEIS	programmatic environmental impact statement
PFC	perfluorocarbons
PFYC	Potential Fossil Yield Classification
PILT	payment in lieu of taxes
P.L.	Public Law
PM	particulate matter
PM <sub>2.5</sub>	particulate matter with an aerodynamic diameter of 2.5 µm or less
PM <sub>10</sub>	particulate matter with an aerodynamic diameter of 10 µm or less
PPE	personal protective equipment
PPH	Preliminary Priority Habitat
PRLA	preference right lease area
PSD	Prevention of Significant Deterioration
R&D	research and development
R&I	relevance and importance
RBOSC	Rio Blanco Oil Shale Company
RCRA	Resource Conservation and Recovery Act of 1976
RD&D	research, development, and demonstration
RF	radio frequency
RFDS	reasonably foreseeable development scenario
RMP	Resource Management Plan
ROD	Record of Decision
ROI	region of influence
ROS	Recreation Opportunity Spectrum
ROW	right-of-way
SAGD	steam-assisted gravity drainage
SAMHSA	Substance Abuse and Mental Health Services Administration
SDWA	Safe Drinking Water Act of 1974
SFC	Synthetic Fuels Corporation
SHPO	State Historic Preservation Office(r)
SIP	State Implementation Plan
SMA	Special Management Area
SMP	suggested management practice
SPR	Strategic Petroleum Reserve
SRMA	Special Recreation Management Area
SSI	self-supplied industry
STSA	Special Tar Sand Area
SWCA	SWCA, Inc., Environmental Consultants
SWPPP	Stormwater Pollution Prevention Plan
SWWRC	States West Water Resources Corporation
TDS	total dissolved solids
THAI	toe to head air injection
TIS	true in situ recovery

TL	timing limitation
TMDL	Total Maximum Daily Load
TOSCO	The Oil Shale Corporation
TSCA	Toxic Substances Control Act of 1976
TSDf	treatment, storage, and disposal facility
UDEQ	Utah Department of Environmental Quality
UDNR	Utah Department of Natural Resources
UDWR	Utah Division of Wildlife Resources
UGS	Utah Geological Survey
UIC	underground injection control
ULP	Uranium Leasing Program
USACE	U.S. Army Corps of Engineers
USC	<i>United States Code</i>
USDA	U.S. Department of Agriculture
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGCRP	U.S. Global Change Research Program
USGS	U.S. Geological Survey
VCRS	Visual Contrast Rating System
VOC	volatile organic compound
VRI	Visual Resource Inventory
VRM	Visual Resource Management
WDEQ	Wyoming Department of Environmental Quality
WEQC	Wyoming Environmental Quality Council
WGFD	Wyoming Game and Fish Department
WRAP	Western Regional Air Partnership
WRCC	Western Regional Climate Center
WRI	World Resources Institute
WRSOC	White River Shale Oil Corporation
WSA	Wilderness Study Area
WSR	Wild and Scenic River
WTGS	wind turbine generator system
WYCRO	Wyoming Cultural Records Office
WYNDD	Wyoming Natural Diversity Database

**CHEMICALS**

CH <sub>4</sub>	methane	H <sub>2</sub> S	hydrogen sulfide
CO	carbon monoxide		
CO <sub>2</sub>	carbon dioxide	NH <sub>3</sub>	ammonia
CO <sub>2e</sub>	carbon dioxide equivalent	NO <sub>2</sub>	nitrogen dioxide

*Final OSTs PEIS*

N <sub>2</sub> O	nitrous oxide	SF <sub>6</sub>	sulfur hexafluoride
NO <sub>x</sub>	nitrogen oxides	SO <sub>2</sub>	sulfur dioxide
		SO <sub>x</sub>	sulfur oxides
O <sub>3</sub>	ozone		
Pb	lead		

**UNITS OF MEASURE**

ac-ft	acre foot (feet)	kPa	kilopascal(s)
		kV	kilovolt(s)
bbl	barrel(s)	kWh	kilowatt-hour(s)
Btu	British thermal unit(s)		
		L	liter(s)
°C	degree(s) Celsius	lb	pound(s)
cfs	cubic foot (feet) per second		
cm	centimeter(s)	m	meter(s)
		m <sup>2</sup>	square meter(s)
dB	decibel(s)	m <sup>3</sup>	cubic meter(s)
dba	A-weighted decibel(s)	mg	milligram(s)
		mi	mile(s)
°F	degree(s) Fahrenheit	mi <sup>2</sup>	square mile(s)
ft	foot (feet)	mJ	megajoule(s)
ft <sup>3</sup>	cubic foot (feet)	mm	millimeter(s)
		MMBtu	million Btus
g	gram(s)	mph	mile(s) per hour
gal	gallon(s)	MW	megawatt(s)
GJ	gigajoule(s)		
gpd	gallon(s) per day	ppb	part(s) per billion
gpm	gallon(s) per minute	ppm	part(s) per million
GW	gigawatt(s)	ppmv	part(s) per million by volume
GWh	gigawatt hour(s)	psi	pound(s) per square inch
h	hour(s)	rpm	rotation(s) per minute
ha	hectare(s)		
hp	horsepower	s	second(s)
Hz	hertz	scf	standard cubic foot (feet)
in.	inch(es)	yd <sup>2</sup>	square yard(s)
		yd <sup>3</sup>	cubic yard(s)
K	degree(s) Kelvin	yr	year(s)
kcal	kilocalorie(s)		
kg	kilogram(s)	µm	micrometer(s)
km	kilometer(s)		

## ENGLISH/METRIC AND METRIC/ENGLISH EQUIVALENTS<sup>a</sup>

The following table lists the appropriate equivalents for English and metric units.

Multiply	By	To Obtain
<b><i>English/Metric Equivalents</i></b>		
acres	0.4047	hectares (ha)
cubic feet (ft <sup>3</sup> )	0.02832	cubic meters (m <sup>3</sup> )
cubic yards (yd <sup>3</sup> )	0.7646	cubic meters (m <sup>3</sup> )
degrees Fahrenheit (°F) –32	0.5555	degrees Celsius (°C)
feet (ft)	0.3048	meters (m)
gallons (gal)	3.785	liters (L)
gallons (gal)	0.003785	cubic meters (m <sup>3</sup> )
inches (in.)	2.540	centimeters (cm)
miles (mi)	1.609	kilometers (km)
miles per hour (mph)	1.609	kilometers per hour (kph)
pounds (lb)	0.4536	kilograms (kg)
short tons (tons)	907.2	kilograms (kg)
short tons (tons)	0.9072	metric tons (t)
square feet (ft <sup>2</sup> )	0.09290	square meters (m <sup>2</sup> )
square yards (yd <sup>2</sup> )	0.8361	square meters (m <sup>2</sup> )
square miles (mi <sup>2</sup> )	2.590	square kilometers (km <sup>2</sup> )
yards (yd)	0.9144	meters (m)
<b><i>Metric/English Equivalents</i></b>		
centimeters (cm)	0.3937	inches (in.)
cubic meters (m <sup>3</sup> )	35.31	cubic feet (ft <sup>3</sup> )
cubic meters (m <sup>3</sup> )	1.308	cubic yards (yd <sup>3</sup> )
cubic meters (m <sup>3</sup> )	264.2	gallons (gal)
degrees Celsius (°C) +17.78	1.8	degrees Fahrenheit (°F)
hectares (ha)	2.471	acres
kilograms (kg)	2.205	pounds (lb)
kilograms (kg)	0.001102	short tons (tons)
kilometers (km)	0.6214	miles (mi)
kilometers per hour (kph)	0.6214	miles per hour (mph)
liters (L)	0.2642	gallons (gal)
meters (m)	3.281	feet (ft)
meters (m)	1.094	yards (yd)
metric tons (t)	1.102	short tons (tons)
square kilometers (km <sup>2</sup> )	0.3861	square miles (mi <sup>2</sup> )
square meters (m <sup>2</sup> )	10.76	square feet (ft <sup>2</sup> )
square meters (m <sup>2</sup> )	1.196	square yards (yd <sup>2</sup> )

<sup>a</sup> In general in this PEIS, only English units are presented. However, where reference sources provided both English and metric units, both values are presented in the order in which they are given in the source. Where reference sources provided only metric units, only those units are presented.