



Nitrogen Critical Loads and Estimated Exceedances in NPS Areas (2015-2017)

- This document identifies risk to ecosystems within all National Park Service units that are served by the Inventory and Monitoring Division (3/31/2019; <https://irma.nps.gov/DataStore/Reference/Profile/2256648>)
- Critical loads are the amount of deposition below which significant harmful effects on specified sensitive elements of the environment do not occur according to present knowledge. (All values are in kg/ha/yr)
- These critical loads (adapted from Pardo et. al 2011) are developed at the ecoregion scale and should only be used to evaluate risk. Spatial distribution of deposition and exceedances are available at <http://clmapper.epa.gov>
- **Bolded-underlined** text denotes modeled deposition levels exceed the critical load based on estimated total nitrogen deposition (2015-2017 3-year average, wet + dry) produced by National Atmospheric Deposition Program (NADP; v.2018.02).
- 'N/A' indicates that no known critical load is currently applicable for this area.

Unit Code	State	NPS Unit	Ecoregion	Max. Total N Dep. in Ecoregion	Forest Min. Critical Load	Forest Max. Critical Load	Herb. Plants Min. Critical Load	Herb. Plants Max. Critical Load	Lichen Min. Critical Load	Lichen Max. Critical Load	Mycorr. Fungi Min. Critical Load	Mycorr. Fungi Max. Critical Load	Nitrate Leaching Min. Critical Load	Nitrate Leaching Max. Critical Load
ABLI	KY	Abraham Lincoln Birthplace National Historical Park	Eastern Temperate Forests	10.0	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
ACAD	ME	Acadia National Park	Eastern Temperate Forests	5.0	<u>3</u>	8	17.5	17.5	<u>4</u>	8	5	12	<u>4</u>	8
AGFO	NE	Agate Fossil Beds National Monument	Great Plains	4.5	N/A	N/A	5	25	N/A	N/A	12	12	N/A	N/A
ALFL	TX	Alibates Flint Quarries National Monument	Great Plains	8.4	N/A	N/A	<u>5</u>	25	N/A	N/A	12	12	N/A	N/A
ALPO	PA	Allegheny Portage Railroad National Historic Site	Eastern Temperate Forests	10.4	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
AMIS	TX	Amistad National Recreation Area	North American Deserts	7.4	N/A	N/A	<u>3</u>	8.4	<u>3</u>	<u>3</u>	N/A	N/A	<u>3</u>	<u>3</u>
AMIS	TX	Amistad National Recreation Area	Great Plains	7.2	N/A	N/A	<u>5</u>	25	N/A	N/A	12	12	N/A	N/A
ANTI	MD	Antietam National Battlefield	Eastern Temperate Forests	10.1	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
APCO	VA	Appomattox Court House National Historical Park	Eastern Temperate Forests	7.4	<u>3</u>	8	17.5	17.5	<u>4</u>	8	<u>5</u>	12	<u>4</u>	8
APIS	WI	Apostle Islands National Lakeshore	Northern Forests	7.5	<u>3</u>	26	<u>7</u>	21	<u>4</u>	<u>6</u>	<u>5</u>	<u>7</u>	<u>4</u>	<u>6</u>
APPA	ME	Appalachian National Scenic Trail	Northern Forests	10.7	<u>3</u>	26	<u>7</u>	21	<u>4</u>	<u>6</u>	<u>5</u>	<u>7</u>	<u>4</u>	<u>6</u>
APPA	ME	Appalachian National Scenic Trail	Eastern Temperate Forests	14.8	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	<u>12</u>	<u>4</u>	<u>8</u>
ARCH	UT	Arches National Park	North American Deserts	3.0	N/A	N/A	<u>3</u>	8.4	<u>3</u>	<u>3</u>	N/A	N/A	<u>3</u>	<u>3</u>
ARPO	AR	Arkansas Post National Memorial	Eastern Temperate Forests	8.4	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
ASIS	MD	Assateague Island National Seashore	Eastern Temperate Forests	11.6	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
AZRU	NM	Aztec Ruins National Monument	North American Deserts	4.1	N/A	N/A	<u>3</u>	8.4	<u>3</u>	<u>3</u>	N/A	N/A	<u>3</u>	<u>3</u>
BADL	SD	Badlands National Park	Great Plains	6.1	N/A	N/A	<u>5</u>	25	N/A	N/A	12	12	N/A	N/A
BAND	NM	Bandelier National Monument	North American Deserts	2.8	N/A	N/A	3	8.4	3	3	N/A	N/A	3	3
BAND	NM	Bandelier National Monument	Northwestern Forested Mountains	4.2	<u>4</u>	17	<u>4</u>	10	<u>2.5</u>	7.1	5	10	<u>2.5</u>	7.1
BEOL	CO	Bent's Old Fort National Historic Site	Great Plains	5.5	N/A	N/A	<u>5</u>	25	N/A	N/A	12	12	N/A	N/A
BIBE	TX	Big Bend National Park	North American Deserts	5.1	N/A	N/A	<u>3</u>	8.4	<u>3</u>	<u>3</u>	N/A	N/A	<u>3</u>	<u>3</u>
BICA	WY	Bighorn Canyon National Recreation Area	North American Deserts	2.3	N/A	N/A	3	8.4	3	3	N/A	N/A	3	3
BICA	WY	Bighorn Canyon National Recreation Area	Northwestern Forested Mountains	3.7	4	17	4	10	<u>2.5</u>	7.1	5	10	<u>2.5</u>	7.1
BICA	WY	Bighorn Canyon National Recreation Area	Great Plains	3.7	N/A	N/A	5	25	N/A	N/A	12	12	N/A	N/A
BICY	FL	Big Cypress National Preserve	Tropical Wet Forests	7.1	<u>5</u>	10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
BICY	FL	Big Cypress National Preserve	Eastern Temperate Forests	6.2	<u>3</u>	8	17.5	17.5	<u>4</u>	8	<u>5</u>	12	<u>4</u>	8

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Unit Code	State	NPS Unit	Ecoregion	Max. Total N Dep. in Ecoregion	Forest Min. Critical Load	Forest Max. Critical Load	Herb. Plants Min. Critical Load	Herb. Plants Max. Critical Load	Lichen Min. Critical Load	Lichen Max. Critical Load	Mycorr. Fungi Min. Critical Load	Mycorr. Fungi Max. Critical Load	Nitrate Leaching Min. Critical Load	Nitrate Leaching Max. Critical Load
BIHO	MT	Big Hole National Battlefield	Northwestern Forested Mountains	2.2	4	17	4	10	2.5	7.1	5	10	2.5	7.1
BISC	FL	Biscayne National Park	Tropical Wet Forests	8.7	<u>5</u>	10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
BISO	TN	Big South Fork National River and Recreation Area	Eastern Temperate Forests	8.3	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
BITH	TX	Big Thicket National Preserve	Eastern Temperate Forests	14.6	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	<u>12</u>	<u>4</u>	<u>8</u>
BITH	TX	Big Thicket National Preserve	Great Plains	14.5	N/A	N/A	<u>5</u>	25	N/A	N/A	<u>12</u>	<u>12</u>	N/A	N/A
BLCA	CO	Black Canyon of the Gunnison National Park	North American Deserts	2.9	N/A	N/A	3	8.4	3	3	N/A	N/A	3	3
BLRI	NC	Blue Ridge Parkway	Eastern Temperate Forests	9.8	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
BLUE	WV	Bluestone National Scenic River	Eastern Temperate Forests	7.7	<u>3</u>	8	17.5	17.5	<u>4</u>	8	<u>5</u>	12	<u>4</u>	8
BOHA	MA	Boston Harbor Islands National Recreation Area	Eastern Temperate Forests	12.4	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	<u>12</u>	<u>4</u>	<u>8</u>
BOWA	VA	Booker T. Washington National Monument	Eastern Temperate Forests	7.3	<u>3</u>	8	17.5	17.5	<u>4</u>	8	<u>5</u>	12	<u>4</u>	8
BRCA	UT	Bryce Canyon National Park	North American Deserts	4.7	N/A	N/A	<u>3</u>	8.4	<u>3</u>	<u>3</u>	N/A	N/A	<u>3</u>	<u>3</u>
BRCA	UT	Bryce Canyon National Park	Northwestern Forested Mountains	4.7	<u>4</u>	17	<u>4</u>	10	<u>2.5</u>	7.1	5	10	<u>2.5</u>	7.1
BUFF	AR	Buffalo National River	Eastern Temperate Forests	9.7	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
CABR	CA	Cabrillo National Monument	Mediterranean California	10.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CACH	AZ	Canyon de Chelly National Monument	North American Deserts	4.0	N/A	N/A	<u>3</u>	8.4	<u>3</u>	<u>3</u>	N/A	N/A	<u>3</u>	<u>3</u>
CACH	AZ	Canyon de Chelly National Monument	Temperate Sierras	4.0	N/A	N/A	N/A	N/A	<u>4</u>	7	N/A	N/A	<u>4</u>	7
CACO	MA	Cape Cod National Seashore	Eastern Temperate Forests	3.8	<u>3</u>	8	17.5	17.5	4	8	5	12	4	8
CAGR	AZ	Casa Grande Ruins National Monument	North American Deserts	5.3	N/A	N/A	<u>3</u>	8.4	<u>3</u>	<u>3</u>	N/A	N/A	<u>3</u>	<u>3</u>
CAHA	NC	Cape Hatteras National Seashore	Eastern Temperate Forests	6.8	<u>3</u>	8	17.5	17.5	<u>4</u>	8	<u>5</u>	12	<u>4</u>	8
CALO	NC	Cape Lookout National Seashore	Eastern Temperate Forests	5.7	<u>3</u>	8	17.5	17.5	<u>4</u>	8	<u>5</u>	12	<u>4</u>	8
CAMO	CA	Castle Mountains National Monument	North American Deserts	4.3	N/A	N/A	<u>3</u>	8.4	<u>3</u>	<u>3</u>	N/A	N/A	<u>3</u>	<u>3</u>
CANA	FL	Canaveral National Seashore	Eastern Temperate Forests	5.7	<u>3</u>	8	17.5	17.5	<u>4</u>	8	<u>5</u>	12	<u>4</u>	8
CANY	UT	Canyonlands National Park	North American Deserts	3.2	N/A	N/A	<u>3</u>	8.4	<u>3</u>	<u>3</u>	N/A	N/A	<u>3</u>	<u>3</u>
CARE	UT	Capitol Reef National Park	North American Deserts	4.2	N/A	N/A	<u>3</u>	8.4	<u>3</u>	<u>3</u>	N/A	N/A	<u>3</u>	<u>3</u>
CARE	UT	Capitol Reef National Park	Northwestern Forested Mountains	4.2	<u>4</u>	17	<u>4</u>	10	<u>2.5</u>	7.1	5	10	<u>2.5</u>	7.1
CARL	NC	Carl Sandburg Home National Historic Site	Eastern Temperate Forests	7.8	<u>3</u>	8	17.5	17.5	<u>4</u>	8	<u>5</u>	12	<u>4</u>	8
CASA	FL	Castillo de San Marcos National Monument	Eastern Temperate Forests	4.5	<u>3</u>	8	17.5	17.5	<u>4</u>	8	5	12	<u>4</u>	8
CATO	MD	Catoctin Mountain Park	Eastern Temperate Forests	12.0	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	<u>12</u>	<u>4</u>	<u>8</u>
CAVE	NM	Carlsbad Caverns National Park	North American Deserts	4.1	N/A	N/A	<u>3</u>	8.4	<u>3</u>	<u>3</u>	N/A	N/A	<u>3</u>	<u>3</u>
CAVE	NM	Carlsbad Caverns National Park	Temperate Sierras	4.4	N/A	N/A	N/A	N/A	<u>4</u>	7	N/A	N/A	<u>4</u>	7
CAVO	NM	Capulin Volcano National Monument	Great Plains	5.6	N/A	N/A	<u>5</u>	25	N/A	N/A	12	12	N/A	N/A
CEBR	UT	Cedar Breaks National Monument	Northwestern Forested Mountains	5.8	<u>4</u>	17	<u>4</u>	10	<u>2.5</u>	7.1	<u>5</u>	10	<u>2.5</u>	7.1
CHAT	GA	Chattahoochee River National Recreation Area	Eastern Temperate Forests	15.2	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	<u>12</u>	<u>4</u>	<u>8</u>
CHCH	GA	Chickamauga and Chattanooga National Military Park	Eastern Temperate Forests	12.3	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	<u>12</u>	<u>4</u>	<u>8</u>
CHCU	NM	Chaco Culture National Historical Park	North American Deserts	3.0	N/A	N/A	<u>3</u>	8.4	<u>3</u>	<u>3</u>	N/A	N/A	<u>3</u>	<u>3</u>
CHIC	OK	Chickasaw National Recreation Area	Great Plains	10.5	N/A	N/A	<u>5</u>	25	N/A	N/A	12	12	N/A	N/A
CHIR	AZ	Chiricahua National Monument	Southern Semiarid Highlands	5.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CHIS	CA	Channel Islands National Park	Mediterranean California	6.5	17	39	<u>6</u>	33	<u>3.1</u>	<u>6</u>	7.8	9.2	<u>3.1</u>	<u>6</u>
CHOH	DC	Chesapeake and Ohio Canal	Eastern Temperate Forests	13.2	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	<u>12</u>	<u>4</u>	<u>8</u>
CHPI	SC	Charles Pinckney National Historic Site	Eastern Temperate Forests	9.4	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
CIRO	ID	City of Rocks National Reserve	North American Deserts	5.1	N/A	N/A	<u>3</u>	8.4	<u>3</u>	<u>3</u>	N/A	N/A	<u>3</u>	<u>3</u>
COLM	CO	Colorado National Monument	North American Deserts	3.3	N/A	N/A	<u>3</u>	8.4	<u>3</u>	<u>3</u>	N/A	N/A	<u>3</u>	<u>3</u>
COLO	VA	Colonial National Historical Park	Eastern Temperate Forests	10.0	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
CONG	SC	Congaree National Park	Eastern Temperate Forests	7.8	<u>3</u>	8	17.5	17.5	<u>4</u>	8	<u>5</u>	12	<u>4</u>	8
CORO	NM	Coronado National Memorial	Southern Semiarid Highlands	5.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
COWP	SC	Cowpens National Battlefield	Eastern Temperate Forests	6.8	<u>3</u>	8	17.5	17.5	<u>4</u>	8	<u>5</u>	12	<u>4</u>	8

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CRLA	OR	Crater Lake National Park	Northwestern Forested Mountains	3.6	4	17	4	10	<u>2.5</u>	7.1	5	10	<u>2.5</u>	7.1
CRMO	ID	Craters of the Moon National Monument and Preserve	North American Deserts	3.8	N/A	N/A	<u>3</u>	8.4	<u>3</u>	<u>3</u>	N/A	N/A	<u>3</u>	<u>3</u>
CRMO	ID	Craters of the Moon National Monument and Preserve	Northwestern Forested Mountains	3.0	4	17	4	10	<u>2.5</u>	7.1	5	10	<u>2.5</u>	7.1
CUGA	KY	Cumberland Gap National Historical Park	Eastern Temperate Forests	7.5	<u>3</u>	8	17.5	17.5	<u>4</u>	8	<u>5</u>	12	<u>4</u>	8
CUIS	GA	Cumberland Island National Seashore	Eastern Temperate Forests	4.9	<u>3</u>	8	17.5	17.5	<u>4</u>	8	5	12	<u>4</u>	8
CURE	CO	Curecanti National Recreation Area	North American Deserts	3.0	N/A	N/A	3	8.4	3	3	N/A	N/A	3	3
CURE	CO	Curecanti National Recreation Area	Northwestern Forested Mountains	3.0	4	17	4	10	<u>2.5</u>	7.1	5	10	<u>2.5</u>	7.1
CUVA	OH	Cuyahoga Valley National Park	Eastern Temperate Forests	13.5	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	<u>12</u>	<u>4</u>	<u>8</u>
DEPO	CA	Devils Postpile National Monument	Northwestern Forested Mountains	5.8	<u>4</u>	17	<u>4</u>	10	<u>2.5</u>	7.1	<u>5</u>	10	<u>2.5</u>	7.1
DETO	WY	Devils Tower National Monument	Northwestern Forested Mountains	4.4	<u>4</u>	17	<u>4</u>	10	<u>2.5</u>	7.1	5	10	<u>2.5</u>	7.1
DEVA	CA	Death Valley National Park	North American Deserts	6.1	N/A	N/A	<u>3</u>	8.4	<u>3</u>	<u>3</u>	N/A	N/A	<u>3</u>	<u>3</u>
DEWA	PA	Delaware Water Gap National Recreation Area	Northern Forests	8.4	<u>3</u>	26	<u>7</u>	21	<u>4</u>	<u>6</u>	<u>5</u>	<u>7</u>	<u>4</u>	<u>6</u>
DEWA	PA	Delaware Water Gap National Recreation Area	Eastern Temperate Forests	9.4	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
DINO	CO	Dinosaur National Monument	North American Deserts	3.5	N/A	N/A	<u>3</u>	8.4	<u>3</u>	<u>3</u>	N/A	N/A	<u>3</u>	<u>3</u>
EBLA	WA	Ebey's Landing National Historical Reserve	Marine West Coast Forest	4.0	5	5	N/A	N/A	<u>2.7</u>	9.2	5	5	<u>2.7</u>	9.2
EFMO	IA	Effigy Mounds National Monument	Eastern Temperate Forests	13.8	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	<u>12</u>	<u>4</u>	<u>8</u>
EISE	PA	Eisenhower National Historic Site	Eastern Temperate Forests	11.7	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
ELMA	NM	El Malpais National Monument	North American Deserts	4.2	N/A	N/A	<u>3</u>	8.4	<u>3</u>	<u>3</u>	N/A	N/A	<u>3</u>	<u>3</u>
ELMA	NM	El Malpais National Monument	Temperate Sierras	4.3	N/A	N/A	N/A	N/A	<u>4</u>	7	N/A	N/A	<u>4</u>	7
ELMO	NM	El Morro National Monument	North American Deserts	3.4	N/A	N/A	<u>3</u>	8.4	<u>3</u>	<u>3</u>	N/A	N/A	<u>3</u>	<u>3</u>
ELRO	NY	Eleanor Roosevelt National Historic Site	Eastern Temperate Forests	7.8	<u>3</u>	8	17.5	17.5	<u>4</u>	8	<u>5</u>	12	<u>4</u>	8
EUON	CA	Eugene O'Neill National Historic Site	Mediterranean California	10.1	17	39	<u>6</u>	33	<u>3.1</u>	<u>6</u>	<u>7.8</u>	<u>9.2</u>	<u>3.1</u>	<u>6</u>
EVER	FL	Everglades National Park	Tropical Wet Forests	10.2	<u>5</u>	<u>10</u>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FIIS	NY	Fire Island National Seashore	Eastern Temperate Forests	10.0	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
FLFO	CO	Florissant Fossil Beds National Monument	Northwestern Forested Mountains	4.0	<u>4</u>	17	<u>4</u>	10	<u>2.5</u>	7.1	5	10	<u>2.5</u>	7.1
FOBO	AZ	Fort Bowie National Historic Site	Southern Semiarid Highlands	3.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FOBU	WY	Fossil Butte National Monument	North American Deserts	4.2	N/A	N/A	<u>3</u>	8.4	<u>3</u>	<u>3</u>	N/A	N/A	<u>3</u>	<u>3</u>
FOCA	FL	Fort Caroline National Memorial	Eastern Temperate Forests	6.8	<u>3</u>	8	17.5	17.5	<u>4</u>	8	<u>5</u>	12	<u>4</u>	8
FODA	TX	Fort Davis National Historic Site	North American Deserts	4.5	N/A	N/A	<u>3</u>	8.4	<u>3</u>	<u>3</u>	N/A	N/A	<u>3</u>	<u>3</u>
FODO	TN	Fort Donelson National Battlefield	Eastern Temperate Forests	10.4	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
FOFR	GA	Fort Frederica National Monument	Eastern Temperate Forests	6.8	<u>3</u>	8	17.5	17.5	<u>4</u>	8	<u>5</u>	12	<u>4</u>	8
FOLA	WY	Fort Laramie National Historic Site	Great Plains	3.8	N/A	N/A	5	25	N/A	N/A	12	12	N/A	N/A
FOLS	KS	Fort Larned National Historic Site	Great Plains	10.5	N/A	N/A	<u>5</u>	25	N/A	N/A	12	12	N/A	N/A
FOMA	FL	Fort Matanzas National Monument	Eastern Temperate Forests	4.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FONE	PA	Fort Necessity National Battlefield	Eastern Temperate Forests	10.0	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
FOPO	CA	Fort Point National Historic Site	Mediterranean California	6.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FOPU	GA	Fort Pulaski National Monument	Eastern Temperate Forests	7.9	<u>3</u>	8	17.5	17.5	<u>4</u>	8	<u>5</u>	12	<u>4</u>	8
FORA	NC	Fort Raleigh National Historic Site	Eastern Temperate Forests	6.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FOSU	SC	Fort Sumter National Monument	Eastern Temperate Forests	10.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FOUN	NM	Fort Union National Monument	Great Plains	3.9	N/A	N/A	5	25	N/A	N/A	12	12	N/A	N/A
FOUS	ND	Fort Union Trading Post National Historic Site	Great Plains	4.6	N/A	N/A	5	25	N/A	N/A	12	12	N/A	N/A
FOVA	WA	Fort Vancouver National Historic Site	Marine West Coast Forest	6.8	<u>5</u>	<u>5</u>	N/A	N/A	<u>2.7</u>	9.2	<u>5</u>	<u>5</u>	<u>2.7</u>	9.2
FOWA	MD	Fort Washington Park	Eastern Temperate Forests	9.7	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
FRDO	DC	Frederick Douglass National Historic Site	Eastern Temperate Forests	14.2	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	<u>12</u>	<u>4</u>	<u>8</u>
FRHI	PA	Friendship Hill National Historic Site	Eastern Temperate Forests	8.5	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
FRSP	VA	Fredericksburg and Spotsylvania County ... NMP	Eastern Temperate Forests	8.9	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>

Nitrogen Critical Loads and Estimated Exceedances in NPS Areas (2015-2017)

Unit Code	State	NPS Unit	Ecoregion	Max. Total N Dep. in Ecoregion	Forest Min. Critical Load	Forest Max. Critical Load	Herb. Plants Min. Critical Load	Herb. Plants Max. Critical Load	Lichen Min. Critical Load	Lichen Max. Critical Load	Mycorr. Fungi Min. Critical Load	Mycorr. Fungi Max. Critical Load	Nitrate Leaching Min. Critical Load	Nitrate Leaching Max. Critical Load
GARI	WV	Gauley River National Recreation Area	Eastern Temperate Forests	7.8	<u>3</u>	8	17.5	17.5	<u>4</u>	8	<u>5</u>	12	<u>4</u>	8
GATE	NY	Gateway National Recreation Area	Eastern Temperate Forests	17.9	<u>3</u>	<u>8</u>	<u>17.5</u>	<u>17.5</u>	<u>4</u>	<u>8</u>	<u>5</u>	<u>12</u>	<u>4</u>	<u>8</u>
GETT	PA	Gettysburg National Military Park	Eastern Temperate Forests	12.0	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	<u>12</u>	<u>4</u>	<u>8</u>
GEWA	VA	George Washington Birthplace National Monument	Eastern Temperate Forests	5.5	<u>3</u>	8	17.5	17.5	<u>4</u>	8	<u>5</u>	12	<u>4</u>	8
GICL	NM	Gila Cliff Dwellings National Monument	Temperate Sierras	4.4	N/A	N/A	N/A	N/A	<u>4</u>	7	N/A	N/A	<u>4</u>	7
GLAC	MT	Glacier National Park	Northwestern Forested Mountains	7.4	<u>4</u>	17	<u>4</u>	10	<u>2.5</u>	<u>7.1</u>	<u>5</u>	10	<u>2.5</u>	<u>7.1</u>
GLCA	UT	Glen Canyon National Recreation Area	North American Deserts	3.8	N/A	N/A	<u>3</u>	8.4	<u>3</u>	<u>3</u>	N/A	N/A	<u>3</u>	<u>3</u>
GOGA	CA	Golden Gate National Recreation Area	Mediterranean California	9.6	17	39	<u>6</u>	33	<u>3.1</u>	<u>6</u>	<u>7.8</u>	<u>9.2</u>	<u>3.1</u>	<u>6</u>
GOGA	CA	Golden Gate National Recreation Area	Marine West Coast Forest	10.0	<u>5</u>	<u>5</u>	N/A	N/A	<u>2.7</u>	<u>9.2</u>	<u>5</u>	<u>5</u>	<u>2.7</u>	<u>9.2</u>
GOSP	UT	Golden Spike National Historic Site	North American Deserts	5.4	N/A	N/A	<u>3</u>	8.4	<u>3</u>	<u>3</u>	N/A	N/A	<u>3</u>	<u>3</u>
GRBA	NV	Great Basin National Park	North American Deserts	4.3	N/A	N/A	<u>3</u>	8.4	<u>3</u>	<u>3</u>	N/A	N/A	<u>3</u>	<u>3</u>
GRCA	AZ	Grand Canyon National Park	North American Deserts	5.7	N/A	N/A	<u>3</u>	8.4	<u>3</u>	<u>3</u>	N/A	N/A	<u>3</u>	<u>3</u>
GRCA	AZ	Grand Canyon National Park	Temperate Sierras	6.2	N/A	N/A	N/A	N/A	<u>4</u>	7	N/A	N/A	<u>4</u>	7
GREE	MD	Greenbelt Park	Eastern Temperate Forests	14.2	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	<u>12</u>	<u>4</u>	<u>8</u>
GRKO	MT	Grant-Kohrs Ranch National Historic Site	Northwestern Forested Mountains	2.1	4	17	4	10	2.5	7.1	5	10	2.5	7.1
GRPO	MI	Grand Portage National Monument	Northern Forests	6.4	<u>3</u>	26	7	21	<u>4</u>	<u>6</u>	<u>5</u>	7	<u>4</u>	<u>6</u>
GRSA	CO	Great Sand Dunes National Park and Preserve	North American Deserts	5.2	N/A	N/A	<u>3</u>	8.4	<u>3</u>	<u>3</u>	N/A	N/A	<u>3</u>	<u>3</u>
GRSA	CO	Great Sand Dunes National Park and Preserve	Northwestern Forested Mountains	6.0	<u>4</u>	17	<u>4</u>	10	<u>2.5</u>	7.1	<u>5</u>	10	<u>2.5</u>	7.1
GRSM	NC	Great Smoky Mountains National Park	Eastern Temperate Forests	8.4	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
GRTE	WY	Grand Teton National Park	Northwestern Forested Mountains	7.4	<u>4</u>	17	<u>4</u>	10	<u>2.5</u>	<u>7.1</u>	<u>5</u>	10	<u>2.5</u>	<u>7.1</u>
GUCO	NC	Guilford Courthouse National Military Park	Eastern Temperate Forests	12.3	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	<u>12</u>	<u>4</u>	<u>8</u>
GUIS	FL	Gulf Islands National Seashore	Eastern Temperate Forests	13.2	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	<u>12</u>	<u>4</u>	<u>8</u>
GUMO	TX	Guadalupe Mountains National Park	North American Deserts	4.9	N/A	N/A	<u>3</u>	8.4	<u>3</u>	<u>3</u>	N/A	N/A	<u>3</u>	<u>3</u>
GUMO	TX	Guadalupe Mountains National Park	Temperate Sierras	5.6	N/A	N/A	N/A	N/A	<u>4</u>	7	N/A	N/A	<u>4</u>	7
GWCA	MO	George Washington Carver National Monument	Eastern Temperate Forests	12.4	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	<u>12</u>	<u>4</u>	<u>8</u>
GWMP	VA	George Washington Memorial Parkway	Eastern Temperate Forests	13.2	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	<u>12</u>	<u>4</u>	<u>8</u>
HAFE	WV	Harpers Ferry National Historical Park	Eastern Temperate Forests	9.8	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
HAFO	ID	Hagerman Fossil Beds National Monument	North American Deserts	7.6	N/A	N/A	<u>3</u>	8.4	<u>3</u>	<u>3</u>	N/A	N/A	<u>3</u>	<u>3</u>
HEHO	IA	Herbert Hoover National Historic Site	Great Plains	12.6	N/A	N/A	<u>5</u>	25	N/A	N/A	<u>12</u>	<u>12</u>	N/A	N/A
HOBE	AL	Horseshoe Bend National Military Park	Eastern Temperate Forests	7.4	<u>3</u>	8	17.5	17.5	<u>4</u>	8	<u>5</u>	12	<u>4</u>	8
HOCU	OH	Hopewell Culture National Historical Park	Eastern Temperate Forests	9.3	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
HOFR	NY	Home of Franklin D. Roosevelt National Historic Site	Eastern Temperate Forests	8.1	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
HOFU	PA	Hopewell Furnace National Historic Site	Eastern Temperate Forests	12.2	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	<u>12</u>	<u>4</u>	<u>8</u>
HOME	NE	Homestead National Monument	Great Plains	12.4	N/A	N/A	<u>5</u>	25	N/A	N/A	<u>12</u>	<u>12</u>	N/A	N/A
HOSP	AR	Hot Springs National Park	Eastern Temperate Forests	9.1	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
HOVE	UT	Hovenweep National Monument	North American Deserts	3.4	N/A	N/A	<u>3</u>	8.4	<u>3</u>	<u>3</u>	N/A	N/A	<u>3</u>	<u>3</u>
HUTR	AZ	Hubbell Trading Post National Historic Site	North American Deserts	2.9	N/A	N/A	3	8.4	3	3	N/A	N/A	3	3
INDU	IN	Indiana Dunes National Lakeshore	Eastern Temperate Forests	16.7	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	<u>12</u>	<u>4</u>	<u>8</u>
ISRO	MI	Isle Royale National Park	Northern Forests	6.8	<u>3</u>	26	7	21	<u>4</u>	<u>6</u>	<u>5</u>	7	<u>4</u>	<u>6</u>
JECA	SD	Jewel Cave National Monument	Northwestern Forested Mountains	5.2	<u>4</u>	17	<u>4</u>	10	<u>2.5</u>	7.1	<u>5</u>	10	<u>2.5</u>	7.1
JELA	LA	Jean Lafitte National Historical Park and Preserve	Eastern Temperate Forests	13.9	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	<u>12</u>	<u>4</u>	<u>8</u>
JELA	LA	Jean Lafitte National Historical Park and Preserve	Great Plains	12.3	N/A	N/A	<u>5</u>	25	N/A	N/A	<u>12</u>	<u>12</u>	N/A	N/A
JODA	OR	John Day Fossil Beds National Monument	Northwestern Forested Mountains	1.3	4	17	4	10	2.5	7.1	5	10	2.5	7.1
JODR	WY	John D. Rockefeller, Jr., Memorial Parkway	Northwestern Forested Mountains	5.8	<u>4</u>	17	<u>4</u>	10	<u>2.5</u>	7.1	<u>5</u>	10	<u>2.5</u>	7.1
JOFL	PA	Johnstown Flood National Memorial	Eastern Temperate Forests	9.7	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
JOMU	CA	John Muir National Historic Site	Mediterranean California	10.9	17	39	<u>6</u>	33	<u>3.1</u>	<u>6</u>	<u>7.8</u>	<u>9.2</u>	<u>3.1</u>	<u>6</u>

Nitrogen Critical Loads and Estimated Exceedances in NPS Areas (2015-2017)

Unit Code	State	NPS Unit	Ecoregion	Max. Total N Dep. in Ecoregion	Forest Min. Critical Load	Forest Max. Critical Load	Herb. Plants Min. Critical Load	Herb. Plants Max. Critical Load	Lichen Min. Critical Load	Lichen Max. Critical Load	Mycorr. Fungi Min. Critical Load	Mycorr. Fungi Max. Critical Load	Nitrate Leaching Min. Critical Load	Nitrate Leaching Max. Critical Load
JOTR	CA	Joshua Tree National Park	North American Deserts	5.5	N/A	N/A	<u>3</u>	8.4	<u>3</u>	<u>3</u>	N/A	N/A	<u>3</u>	<u>3</u>
KAWW	MA	Katahdin Woods And Waters National Monument	Northern Forests	4.0	<u>3</u>	26	7	21	<u>4</u>	6	5	7	<u>4</u>	6
KAWW	MA	Katahdin Woods And Waters National Monument	Eastern Temperate Forests	3.7	<u>3</u>	8	17.5	17.5	4	8	5	12	4	8
KEMO	GA	Kennesaw Mountain National Battlefield Park	Eastern Temperate Forests	12.7	<u>3</u>	8	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	<u>12</u>	<u>4</u>	<u>8</u>
KICA	CA	Kings Canyon National Park	Mediterranean California	7.9	17	39	<u>6</u>	33	<u>3.1</u>	<u>6</u>	<u>7.8</u>	9.2	<u>3.1</u>	<u>6</u>
KICA	CA	Kings Canyon National Park	Northwestern Forested Mountains	8.5	<u>4</u>	17	<u>4</u>	10	<u>2.5</u>	<u>7.1</u>	<u>5</u>	10	<u>2.5</u>	<u>7.1</u>
KIMO	SC	Kings Mountain National Military Park	Eastern Temperate Forests	7.8	<u>3</u>	8	17.5	17.5	<u>4</u>	8	<u>5</u>	12	<u>4</u>	8
KNRI	ND	Knife River Indian Villages National Historic Site	Great Plains	8.0	N/A	N/A	<u>5</u>	25	N/A	N/A	12	12	N/A	N/A
LABE	CA	Lava Beds National Monument	Northwestern Forested Mountains	2.8	4	17	4	10	<u>2.5</u>	7.1	5	10	<u>2.5</u>	7.1
LAKE	NV	Lake Mead National Recreation Area	North American Deserts	4.2	N/A	N/A	<u>3</u>	8.4	<u>3</u>	<u>3</u>	N/A	N/A	<u>3</u>	<u>3</u>
LAMR	TX	Lake Meredith National Recreation Area	Great Plains	8.6	N/A	N/A	<u>5</u>	25	N/A	N/A	12	12	N/A	N/A
LARO	WA	Lake Roosevelt National Recreation Area	North American Deserts	2.4	N/A	N/A	3	8.4	3	3	N/A	N/A	3	3
LARO	WA	Lake Roosevelt National Recreation Area	Northwestern Forested Mountains	2.4	4	17	4	10	2.5	7.1	5	10	2.5	7.1
LAVO	CA	Lassen Volcanic National Park	Northwestern Forested Mountains	4.2	<u>4</u>	17	<u>4</u>	10	<u>2.5</u>	7.1	5	10	<u>2.5</u>	7.1
LEWI	OR	Lewis and Clark National Historical Park	Marine West Coast Forest	3.6	5	5	N/A	N/A	<u>2.7</u>	9.2	5	5	<u>2.7</u>	9.2
LIBI	MT	Little Bighorn Battlefield National Monument	Great Plains	3.2	N/A	N/A	5	25	N/A	N/A	12	12	N/A	N/A
LIBO	IN	Lincoln Boyhood National Memorial	Eastern Temperate Forests	11.1	<u>3</u>	8	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
LIRI	AL	Little River Canyon National Preserve	Eastern Temperate Forests	9.8	<u>3</u>	8	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
LYJO	TX	Lyndon B. Johnson National Historical Park	Great Plains	7.4	N/A	N/A	<u>5</u>	25	N/A	N/A	12	12	N/A	N/A
MABI	VT	Marsh-Billings-Rockefeller National Historical Park	Northern Forests	5.6	<u>3</u>	26	7	21	<u>4</u>	6	<u>5</u>	7	<u>4</u>	6
MACA	KY	Mammoth Cave National Park	Eastern Temperate Forests	10.4	<u>3</u>	8	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
MANA	VA	Manassas National Battlefield Park	Eastern Temperate Forests	9.7	<u>3</u>	8	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
MANZ	CA	Manzanar National Historic Site	North American Deserts	3.3	N/A	N/A	<u>3</u>	8.4	<u>3</u>	<u>3</u>	N/A	N/A	<u>3</u>	<u>3</u>
MEVE	CO	Mesa Verde National Park	North American Deserts	4.1	N/A	N/A	<u>3</u>	8.4	<u>3</u>	<u>3</u>	N/A	N/A	<u>3</u>	<u>3</u>
MIMA	MA	Minute Man National Historical Park	Eastern Temperate Forests	7.7	<u>3</u>	8	17.5	17.5	<u>4</u>	8	<u>5</u>	12	<u>4</u>	8
MISS	MN	Mississippi National River and Recreation Area	Eastern Temperate Forests	18.5	<u>3</u>	8	<u>17.5</u>	<u>17.5</u>	<u>4</u>	<u>8</u>	<u>5</u>	<u>12</u>	<u>4</u>	<u>8</u>
MISS	MN	Mississippi National River and Recreation Area	Great Plains	13.8	N/A	N/A	<u>5</u>	25	N/A	N/A	<u>12</u>	<u>12</u>	N/A	N/A
MNRR	SD	Missouri National Recreation River	Great Plains	12.7	N/A	N/A	<u>5</u>	25	N/A	N/A	<u>12</u>	<u>12</u>	N/A	N/A
MOCA	AZ	Montezuma Castle National Monument	Temperate Sierras	3.8	N/A	N/A	N/A	N/A	4	7	N/A	N/A	4	7
MOCR	NC	Moore's Creek National Battlefield	Eastern Temperate Forests	11.7	<u>3</u>	8	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
MOJA	CA	Mojave National Preserve	North American Deserts	4.9	N/A	N/A	<u>3</u>	8.4	<u>3</u>	<u>3</u>	N/A	N/A	<u>3</u>	<u>3</u>
MONO	MD	Monocacy National Battlefield	Eastern Temperate Forests	11.7	<u>3</u>	8	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
MORA	WA	Mount Rainier National Park	Northwestern Forested Mountains	4.4	<u>4</u>	17	<u>4</u>	10	<u>2.5</u>	7.1	5	10	<u>2.5</u>	7.1
MORA	WA	Mount Rainier National Park	Marine West Coast Forest	3.7	5	5	N/A	N/A	<u>2.7</u>	9.2	5	5	<u>2.7</u>	9.2
MORR	NJ	Morristown National Historical Park	Northern Forests	11.0	<u>3</u>	26	<u>7</u>	21	<u>4</u>	<u>6</u>	<u>5</u>	<u>7</u>	<u>4</u>	<u>6</u>
MORR	NJ	Morristown National Historical Park	Eastern Temperate Forests	11.0	<u>3</u>	8	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
MORU	SD	Mount Rushmore National Memorial	Northwestern Forested Mountains	5.9	<u>4</u>	17	<u>4</u>	10	<u>2.5</u>	7.1	<u>5</u>	10	<u>2.5</u>	7.1
MUWO	CA	Muir Woods National Monument	Mediterranean California	7.7	17	39	<u>6</u>	33	<u>3.1</u>	<u>6</u>	7.8	9.2	<u>3.1</u>	<u>6</u>
NABR	UT	Natural Bridges National Monument	North American Deserts	4.4	N/A	N/A	<u>3</u>	8.4	<u>3</u>	<u>3</u>	N/A	N/A	<u>3</u>	<u>3</u>
NACE	DC	National Capital Parks-East	Eastern Temperate Forests	12.2	<u>3</u>	8	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	<u>12</u>	<u>4</u>	<u>8</u>
NATR	MS	Natchez Trace Parkway	Eastern Temperate Forests	12.5	<u>3</u>	8	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	<u>12</u>	<u>4</u>	<u>8</u>
NAVA	AZ	Navajo National Monument	North American Deserts	3.4	N/A	N/A	<u>3</u>	8.4	<u>3</u>	<u>3</u>	N/A	N/A	<u>3</u>	<u>3</u>
NEPE	WA	Nez Perce National Historical Park	North American Deserts	3.0	N/A	N/A	3	8.4	3	3	N/A	N/A	3	3
NEPE	WA	Nez Perce National Historical Park	Northwestern Forested Mountains	3.7	4	17	4	10	<u>2.5</u>	7.1	5	10	<u>2.5</u>	7.1
NEPE	WA	Nez Perce National Historical Park	Great Plains	3.6	N/A	N/A	5	25	N/A	N/A	12	12	N/A	N/A
NERI	VA	New River Gorge National River	Eastern Temperate Forests	8.3	<u>3</u>	8	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>

Nitrogen Critical Loads and Estimated Exceedances in NPS Areas (2015-2017)

Unit Code	State	NPS Unit	Ecoregion	Max. Total N Dep. in Ecoregion	Forest Min. Critical Load	Forest Max. Critical Load	Herb. Plants Min. Critical Load	Herb. Plants Max. Critical Load	Lichen Min. Critical Load	Lichen Max. Critical Load	Mycorr. Fungi Min. Critical Load	Mycorr. Fungi Max. Critical Load	Nitrate Leaching Min. Critical Load	Nitrate Leaching Max. Critical Load
NIOB	NE	Niobrara National Scenic River	Great Plains	9.2	N/A	N/A	<u>5</u>	25	N/A	N/A	12	12	N/A	N/A
NISI	SC	Ninety Six National Historic Site	Eastern Temperate Forests	6.5	<u>3</u>	8	17.5	17.5	<u>4</u>	8	<u>5</u>	12	<u>4</u>	8
NOCA	WA	North Cascades National Park	Northwestern Forested Mountains	4.3	<u>4</u>	17	<u>4</u>	10	<u>2.5</u>	7.1	5	10	<u>2.5</u>	7.1
OBRI	TN	Obed Wild and Scenic River	Eastern Temperate Forests	8.3	<u>3</u>	8	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
OCMU	GA	Ocmulgee National Monument	Eastern Temperate Forests	10.2	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
OLYM	WA	Olympic National Park	Northwestern Forested Mountains	4.1	<u>4</u>	17	<u>4</u>	10	<u>2.5</u>	7.1	5	10	<u>2.5</u>	7.1
OLYM	WA	Olympic National Park	Marine West Coast Forest	4.1	5	5	N/A	N/A	<u>2.7</u>	9.2	5	5	<u>2.7</u>	9.2
ORCA	OR	Oregon Caves National Monument	Northwestern Forested Mountains	4.3	<u>4</u>	17	<u>4</u>	10	<u>2.5</u>	7.1	5	10	<u>2.5</u>	7.1
ORPI	AZ	Organ Pipe Cactus National Monument	North American Deserts	3.0	N/A	N/A	3	8.4	3	3	N/A	N/A	3	3
OZAR	MO	Ozark National Scenic Riverway	Eastern Temperate Forests	9.5	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
PAAL	TX	Palo Alto Battlefield National Historical Park	Great Plains	N/A	N/A	N/A	5	25	N/A	N/A	12	12	N/A	N/A
PAIS	TX	Padre Island National Seashore	Great Plains	7.3	N/A	N/A	<u>5</u>	25	N/A	N/A	12	12	N/A	N/A
PARA	AZ	Grand Canyon-Parashant National Monument	North American Deserts	4.6	N/A	N/A	<u>3</u>	8.4	<u>3</u>	<u>3</u>	N/A	N/A	<u>3</u>	<u>3</u>
PECO	NM	Pecos National Historical Park	Northwestern Forested Mountains	4.3	<u>4</u>	17	<u>4</u>	10	<u>2.5</u>	7.1	5	10	<u>2.5</u>	7.1
PEFO	AZ	Petrified Forest National Park	North American Deserts	3.5	N/A	N/A	<u>3</u>	8.4	<u>3</u>	<u>3</u>	N/A	N/A	<u>3</u>	<u>3</u>
PERI	AR	Pea Ridge National Military Park	Eastern Temperate Forests	12.4	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	<u>12</u>	<u>4</u>	<u>8</u>
PETE	VA	Petersburg National Battlefield	Eastern Temperate Forests	10.7	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
PETR	NM	Petroglyph National Monument	North American Deserts	5.0	N/A	N/A	<u>3</u>	8.4	<u>3</u>	<u>3</u>	N/A	N/A	<u>3</u>	<u>3</u>
PINN	CA	Pinnacles National Park	Mediterranean California	3.0	17	39	6	33	3.1	6	7.8	9.2	3.1	6
PIPE	MN	Pipestone National Monument	Great Plains	13.6	N/A	N/A	<u>5</u>	25	N/A	N/A	<u>12</u>	<u>12</u>	N/A	N/A
PIRO	MI	Pictured Rocks National Lakeshore	Northern Forests	9.9	<u>3</u>	26	<u>7</u>	21	<u>4</u>	<u>6</u>	<u>5</u>	<u>7</u>	<u>4</u>	<u>6</u>
PISP	AZ	Pipe Spring National Monument	North American Deserts	2.8	N/A	N/A	3	8.4	3	3	N/A	N/A	3	3
PORE	CA	Point Reyes National Seashore	Mediterranean California	5.7	17	39	6	33	<u>3.1</u>	6	7.8	9.2	<u>3.1</u>	6
PRWI	VA	Prince William Forest Park	Eastern Temperate Forests	9.8	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
RABR	UT	Rainbow Bridge National Monument	North American Deserts	2.4	N/A	N/A	3	8.4	3	3	N/A	N/A	3	3
REDW	CA	Redwood National and State Parks	Northwestern Forested Mountains	5.7	<u>4</u>	17	<u>4</u>	10	<u>2.5</u>	7.1	<u>5</u>	10	<u>2.5</u>	7.1
REDW	CA	Redwood National and State Parks	Marine West Coast Forest	6.3	<u>5</u>	<u>5</u>	N/A	N/A	<u>2.7</u>	9.2	<u>5</u>	<u>5</u>	<u>2.7</u>	9.2
RICH	VA	Richmond National Battlefield Park	Eastern Temperate Forests	11.1	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
RIGR	TX	Rio Grande Wild and Scenic River	North American Deserts	5.6	N/A	N/A	<u>3</u>	8.4	<u>3</u>	<u>3</u>	N/A	N/A	<u>3</u>	<u>3</u>
ROCR	DC	Rock Creek Park	Eastern Temperate Forests	13.2	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	<u>12</u>	<u>4</u>	<u>8</u>
ROMO	CO	Rocky Mountain National Park	Northwestern Forested Mountains	6.5	<u>4</u>	17	<u>4</u>	10	<u>2.5</u>	7.1	<u>5</u>	10	<u>2.5</u>	7.1
ROVA	NY	Roosevelt-Vanderbilt National Historic Sites	Eastern Temperate Forests	8.1	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
RUCA	AL	Russell Cave National Monument	Eastern Temperate Forests	8.9	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
SAAN	TX	San Antonio Missions National Historical Park	Eastern Temperate Forests	8.4	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
SAAN	TX	San Antonio Missions National Historical Park	Great Plains	13.1	N/A	N/A	<u>5</u>	25	N/A	N/A	<u>12</u>	<u>12</u>	N/A	N/A
SACN	WI	Saint Croix National Scenic Riverway	Northern Forests	10.9	<u>3</u>	26	<u>7</u>	21	<u>4</u>	<u>6</u>	<u>5</u>	<u>7</u>	<u>4</u>	<u>6</u>
SACN	WI	Saint Croix National Scenic Riverway	Eastern Temperate Forests	10.9	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
SAGA	NH	Saint-Gaudens National Historic Site	Northern Forests	5.4	<u>3</u>	26	7	21	<u>4</u>	6	<u>5</u>	7	<u>4</u>	6
SAGU	AZ	Saguaro National Park	North American Deserts	4.9	N/A	N/A	<u>3</u>	8.4	<u>3</u>	<u>3</u>	N/A	N/A	<u>3</u>	<u>3</u>
SAGU	AZ	Saguaro National Park	Southern Semiarid Highlands	5.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SAHI	NY	Sagamore Hill National Historic Site	Eastern Temperate Forests	13.0	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	<u>12</u>	<u>4</u>	<u>8</u>
SAIR	MA	Saugus Iron Works National Historic Site	Eastern Temperate Forests	8.9	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
SAJH	WA	San Juan Island National Historical Park	Marine West Coast Forest	4.0	5	5	N/A	N/A	<u>2.7</u>	9.2	5	5	<u>2.7</u>	9.2
SAMO	CA	Santa Monica Mountains National Recreation Area	Mediterranean California	22.1	<u>17</u>	39	<u>6</u>	33	<u>3.1</u>	<u>6</u>	<u>7.8</u>	<u>9.2</u>	<u>3.1</u>	<u>6</u>
SAND	CO	Sand Creek Massacre National Historic Site	Great Plains	6.4	N/A	N/A	<u>5</u>	25	N/A	N/A	12	12	N/A	N/A
SAPU	NM	Salinas Pueblo Missions National Monument	Great Plains	3.6	N/A	N/A	5	25	N/A	N/A	12	12	N/A	N/A

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Unit Code	State	NPS Unit	Ecoregion	Max. Total N Dep. in Ecoregion	Forest Min. Critical Load	Forest Max. Critical Load	Herb. Plants Min. Critical Load	Herb. Plants Max. Critical Load	Lichen Min. Critical Load	Lichen Max. Critical Load	Mycorr. Fungi Min. Critical Load	Mycorr. Fungi Max. Critical Load	Nitrate Leaching Min. Critical Load	Nitrate Leaching Max. Critical Load
SARA	NY	Saratoga National Historical Park	Eastern Temperate Forests	7.6	<u>3</u>	8	17.5	17.5	<u>4</u>	8	<u>5</u>	12	<u>4</u>	8
SCBL	NE	Scotts Bluff National Monument	Great Plains	6.5	N/A	N/A	<u>5</u>	25	N/A	N/A	12	12	N/A	N/A
SEKI	CA	Sequoia and Kings Canyon National Parks	Mediterranean California	8.7	17	39	<u>6</u>	33	<u>3.1</u>	<u>6</u>	<u>7.8</u>	9.2	<u>3.1</u>	<u>6</u>
SEKI	CA	Sequoia and Kings Canyon National Parks	Northwestern Forested Mountains	8.7	<u>4</u>	17	<u>4</u>	10	<u>2.5</u>	<u>7.1</u>	<u>5</u>	10	<u>2.5</u>	<u>7.1</u>
SEQU	CA	Sequoia National Park	Mediterranean California	8.7	17	39	<u>6</u>	33	<u>3.1</u>	<u>6</u>	<u>7.8</u>	9.2	<u>3.1</u>	<u>6</u>
SEQU	CA	Sequoia National Park	Northwestern Forested Mountains	8.7	<u>4</u>	17	<u>4</u>	10	<u>2.5</u>	<u>7.1</u>	<u>5</u>	10	<u>2.5</u>	<u>7.1</u>
SHEN	VA	Shenandoah National Park	Eastern Temperate Forests	12.1	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	<u>12</u>	<u>4</u>	<u>8</u>
SHIL	MS	Shiloh National Battlefield	Eastern Temperate Forests	7.5	<u>3</u>	8	17.5	17.5	<u>4</u>	8	<u>5</u>	12	<u>4</u>	8
SLBE	MI	Sleeping Bear Dunes National Lakeshore	Eastern Temperate Forests	8.9	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
STRI	TN	Stones River National Battlefield	Eastern Temperate Forests	9.7	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
SUCR	AZ	Sunset Crater Volcano National Monument	Temperate Sierras	4.9	N/A	N/A	N/A	N/A	<u>4</u>	7	N/A	N/A	<u>4</u>	7
TAPR	KS	Tallgrass Prairie National Preserve	Great Plains	9.7	N/A	N/A	<u>5</u>	25	N/A	N/A	12	12	N/A	N/A
THRO	ND	Theodore Roosevelt National Park	Great Plains	5.2	N/A	N/A	<u>5</u>	25	N/A	N/A	12	12	N/A	N/A
THST	MD	Thomas Stone National Historic Site	Eastern Temperate Forests	8.8	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
TICA	UT	Timpanogos Cave National Monument	Northwestern Forested Mountains	7.8	<u>4</u>	17	<u>4</u>	10	<u>2.5</u>	<u>7.1</u>	<u>5</u>	10	<u>2.5</u>	<u>7.1</u>
TIMU	FL	Timucuan Ecological and Historic Preserve	Eastern Temperate Forests	7.5	<u>3</u>	8	17.5	17.5	<u>4</u>	8	<u>5</u>	12	<u>4</u>	8
TONT	AZ	Tonto National Monument	Temperate Sierras	3.9	N/A	N/A	N/A	N/A	4	7	N/A	N/A	4	7
TUMA	AZ	Tumacacori National Historical Park	Southern Semiarid Highlands	3.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TUSK	NV	Tule Springs Fossil Beds National Monument	North American Deserts	5.5	N/A	N/A	<u>3</u>	8.4	<u>3</u>	<u>3</u>	N/A	N/A	<u>3</u>	<u>3</u>
TUZI	AZ	Tuzigoot National Monument	Temperate Sierras	3.3	N/A	N/A	N/A	N/A	4	7	N/A	N/A	4	7
UPDE	PA	Upper Delaware Scenic and Recreational River	Northern Forests	8.2	<u>3</u>	26	<u>7</u>	21	<u>4</u>	<u>6</u>	<u>5</u>	<u>7</u>	<u>4</u>	<u>6</u>
UPDE	PA	Upper Delaware Scenic and Recreational River	Eastern Temperate Forests	7.5	<u>3</u>	8	17.5	17.5	<u>4</u>	8	<u>5</u>	12	<u>4</u>	8
VAFO	PA	Valley Forge National Historical Park	Eastern Temperate Forests	12.8	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	<u>12</u>	<u>4</u>	<u>8</u>
VAMA	NY	Vanderbilt Mansion National Historic Site	Eastern Temperate Forests	7.9	<u>3</u>	8	17.5	17.5	<u>4</u>	8	<u>5</u>	12	<u>4</u>	8
VICK	LA	Vicksburg National Military Park	Eastern Temperate Forests	10.2	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
VOYA	MN	Voyageurs National Park	Northern Forests	4.9	<u>3</u>	26	7	21	<u>4</u>	6	5	7	<u>4</u>	6
WABA	OK	Washita Battlefield National Historic Site	Great Plains	8.2	N/A	N/A	<u>5</u>	25	N/A	N/A	12	12	N/A	N/A
WACA	AZ	Walnut Canyon National Monument	Temperate Sierras	6.2	N/A	N/A	N/A	N/A	<u>4</u>	7	N/A	N/A	<u>4</u>	7
WEFA	CT	Weir Farm National Historic Site	Eastern Temperate Forests	9.8	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
WHIS	CA	Whiskeytown-Shasta-Trinity National Recreation Area	Mediterranean California	4.1	17	39	6	33	<u>3.1</u>	6	7.8	9.2	<u>3.1</u>	6
WHIS	CA	Whiskeytown-Shasta-Trinity National Recreation Area	Northwestern Forested Mountains	4.3	<u>4</u>	17	<u>4</u>	10	<u>2.5</u>	7.1	5	10	<u>2.5</u>	7.1
WHMI	WA	Whitman Mission National Historic Site	North American Deserts	2.7	N/A	N/A	3	8.4	3	3	N/A	N/A	3	3
WHSA	NM	White Sands National Monument	North American Deserts	3.3	N/A	N/A	<u>3</u>	8.4	<u>3</u>	<u>3</u>	N/A	N/A	<u>3</u>	<u>3</u>
WICA	SD	Wind Cave National Park	Northwestern Forested Mountains	5.5	<u>4</u>	17	<u>4</u>	10	<u>2.5</u>	<u>7.1</u>	<u>5</u>	10	<u>2.5</u>	7.1
WICR	MO	Wilson's Creek National Battlefield	Eastern Temperate Forests	11.9	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
WOTR	VA	Wolf Trap National Park for the Performing Arts	Eastern Temperate Forests	11.5	<u>3</u>	<u>8</u>	17.5	17.5	<u>4</u>	<u>8</u>	<u>5</u>	12	<u>4</u>	<u>8</u>
WRBR	NC	Wright Brothers National Memorial	Eastern Temperate Forests	6.4	<u>3</u>	8	17.5	17.5	<u>4</u>	8	<u>5</u>	12	<u>4</u>	8
WUPA	AZ	Wupatki National Monument	North American Deserts	3.1	N/A	N/A	<u>3</u>	8.4	<u>3</u>	<u>3</u>	N/A	N/A	<u>3</u>	<u>3</u>
WUPA	AZ	Wupatki National Monument	Temperate Sierras	2.9	N/A	N/A	N/A	N/A	4	7	N/A	N/A	4	7
YELL	WY	Yellowstone National Park	Northwestern Forested Mountains	6.1	<u>4</u>	17	<u>4</u>	10	<u>2.5</u>	7.1	<u>5</u>	10	<u>2.5</u>	7.1
YOSE	CA	Yosemite National Park	North American Deserts	5.6	N/A	N/A	<u>3</u>	8.4	<u>3</u>	<u>3</u>	N/A	N/A	<u>3</u>	<u>3</u>
YOSE	CA	Yosemite National Park	Northwestern Forested Mountains	6.2	<u>4</u>	17	<u>4</u>	10	<u>2.5</u>	<u>7.1</u>	<u>5</u>	10	<u>2.5</u>	7.1
YUHO	CO	Yucca House National Monument	North American Deserts	3.4	N/A	N/A	<u>3</u>	8.4	<u>3</u>	<u>3</u>	N/A	N/A	<u>3</u>	<u>3</u>
ZION	UT	Zion National Park	North American Deserts	4.5	N/A	N/A	<u>3</u>	8.4	<u>3</u>	<u>3</u>	N/A	N/A	<u>3</u>	<u>3</u>
ZION	UT	Zion National Park	Northwestern Forested Mountains	4.5	<u>4</u>	17	<u>4</u>	10	<u>2.5</u>	7.1	5	10	<u>2.5</u>	7.1

Nitrogen Critical Loads and Estimated Exceedances in NPS Areas (2015-2017)