

# Index

## A

- Access road: 1, 4, 6, 8, 23, 24, 27, 33, 34, 35, 38, 39, 41, 44, 54, 57, 59, 62, 69, 73, 77, 88, 92, 96, 107, 137, 143, 144, 147, 300, 313, 326, 336, 369, 374, 391, 392, 394, 399, 400, 405, 406, 407, 409, 411, 417, 427, 428, 446, 448, 449, 474, 480, 481, 482, 485, 486, 493, 509, 512, 531, 532, 533, 535, 537, 539, 542, 546, 553, 554, 565, 574, 581, 590, 592, 594, 595, 604, 610, 611, 612, 614, 651, 668, 676, 680, 684, 689, 693, 696, 749
- Acid rock drainage: 32, 100, 325, 327, 336, 340, 341, 342, 348, 349, 817
- Active management area: 42, 75, 206, 213, 214, 228, 229, 230, 253, 278, 279, 307, 659, 786, 794
- Affected environment: 3, 46, 62, 107, 108, 111, 135, 140, 156, 163, 205, 228, 276, 284, 301, 321, 327, 347, 350, 360, 363, 393, 402, 414, 424, 429, 433, 442, 444, 447, 452, 454, 457, 467, 480, 496, 505, 506, 516, 549, 557, 580, 583, 591, 594, 604, 605, 613, 617, 627, 643, 648, 658, 669, 707, 737, 754, 803, 817
- Air quality: 12, 13, 20, 43, 64, 65, 97, 104, 158, 159, 160, 161, 163, 164, 166, 168, 169, 170, 174, 175, 177, 179, 180, 182, 183, 185, 186, 187, 188, 190, 192, 194, 195, 196, 197, 200, 203, 204, 205, 350, 452, 463, 472, 507, 552, 559, 644, 645, 647, 648, 650, 657, 658, 659, 660, 705, 745, 752, 754, 774, 775, 776, 779, 780, 798, 801, 808, 812, 827, 829
- Ambient concentration: 170, 173, 184, 185, 186, 187, 188, 189, 190, 191, 287, 650, 817
- American Indian Religious Freedom Act: 669
- Animal unit month: 1, 101, 430, 432, 435, 436, 437, 439, 440, 441, 817
- Aquifer: 14, 32, 36, 40, 57, 71, 76, 80, 86, 87, 88, 99, 105, 109, 140, 142, 206, 209, 211, 213, 216, 217, 220, 221, 223, 224, 228, 229, 231, 232, 233, 235, 238, 246, 252, 253, 254, 259, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 277, 279, 280, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 301, 303, 309, 341, 342, 343, 344, 345, 346, 387, 388, 389, 390, 553, 554, 558, 649, 748, 780, 786, 804, 818, 819
- Archaeological site: 17, 662, 671, 672, 675, 679, 681, 682, 685, 698, 699, 700, 825
- Arizona Department of Commerce: 526, 708, 709, 711, 714, 725, 731, 740, 741, 780
- Arizona Department of Environmental Quality (ADEQ): 14, 15, 28, 32, 33, 34, 35, 36, 40, 41, 43, 44, 57, 64, 71, 76, 77, 80, 131, 165, 170, 174, 175, 180, 187, 209, 280, 284, 285, 291, 295, 298, 309, 323, 328, 329, 330, 333, 341, 342, 346, 347, 572, 758, 760, 780, 804, 818
- Arizona Department of Mines and Mineral Resources: 758, 760, 793, 801
- Arizona Department of Water Resources (ADWR): 34, 40, 41, 42, 110, 133, 213, 215, 228, 229, 230, 232, 235, 236, 237, 238, 240, 241, 242, 243, 244, 252, 253, 267, 276, 277, 300, 302, 309, 310, 311, 312, 314, 315, 316, 317, 758, 760, 781, 788, 794
- Arizona Game and Fish Department (AGFD): 16, 28, 108, 353, 358, 371, 373, 374, 375, 376, 377, 378, 379, 380, 382, 383, 384, 414, 517, 525, 535, 537, 542, 544, 549, 674, 687, 758, 760, 781, 783, 784, 785, 788, 790, 801
- Arizona Geological Survey: 116, 131, 648, 758, 760, 789, 792, 795, 797
- Arizona Revised Statutes (ARS): 10, 18, 34, 35, 40, 76, 140, 141, 165, 229, 230, 285,

## Index

328, 424, 448, 525, 557, 558, 565, 584, 589, 628, 654, 663, 794, 818, 819

Arizona State Land Department: 38, 39, 41, 101, 277, 368, 391, 417, 423, 424, 425, 428, 697, 698, 758, 760

Attainment area: 169, 818

### B

Background concentration: 180, 183, 184, 185, 186, 187, 188, 189, 190, 191, 818

Baseline: 3, 46, 76, 107, 110, 147, 148, 175, 298, 312, 315, 317, 318, 319, 320, 321, 325, 326, 333, 336, 337, 338, 347, 349, 461, 651, 652, 749, 805, 815

Best available demonstrated control technology (BADCT): 14, 32, 40, 99, 280, 282, 296, 342, 780

Best management practices (BMP): 33, 41, 72, 77, 137, 141, 157, 313, 326, 329, 346, 348, 349, 818

Biological resources: 100, 107, 208, 267, 295, 312, 313, 315, 316, 325, 350, 352, 414, 416, 435, 472, 535, 585, 590, 616, 687, 755, 772, 773, 776

Bureau of Economic Analysis: 700, 717, 721, 785

Bureau of Labor Statistics: 700, 721

Bureau of Land Management (BLM): 1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 16, 19, 23, 28, 38, 39, 40, 42, 46, 68, 73, 78, 82, 100, 101, 108, 110, 112, 113, 117, 126, 130, 238, 240, 241, 243, 244, 322, 353, 354, 355, 358, 361, 368, 371, 378, 380, 386, 391, 395, 402, 414, 417, 423, 424, 425, 427, 429, 430, 437, 457, 460, 461, 464, 468, 469, 470, 471, 474, 477, 484, 485, 498, 508, 509, 513, 514, 518, 524, 526, 551, 595, 597, 616, 628, 655, 659, 697, 708, 723, 745, 746, 757, 761, 772, 774, 775, 785, 786, 790, 791, 799, 801, 808, 815, 820, 821, 822, 826, 827, 828, 832

### C

Candidate species: 354, 362, 819

Census Bureau: 708, 709, 712, 726, 735

Clean Air Act (CAA): 12, 65, 113, 160, 165, 168, 169, 175, 180, 183, 187, 627, 819, 828

Clean Water Act: 5, 9, 10, 34, 40, 45, 77, 78, 80, 81, 85, 113, 325, 328, 329, 330, 347, 350, 387, 390, 829, 835

Climate: 97, 158, 161, 166, 167, 197, 205, 304, 350, 463, 507, 552, 650, 657, 722, 752, 775, 776, 792, 802, 812, 813

Code of Federal Regulations (CFR): 4, 5, 6, 7, 8, 9, 12, 35, 41, 45, 62, 70, 78, 79, 81, 82, 83, 89, 108, 110, 111, 112, 113, 114, 135, 156, 161, 164, 165, 166, 168, 169, 195, 200, 205, 276, 321, 337, 347, 358, 361, 377, 414, 424, 429, 442, 447, 452, 467, 516, 517, 528, 549, 557, 558, 565, 580, 589, 591, 613, 622, 623, 625, 628, 643, 648, 654, 658, 671, 672, 754, 810, 817, 819, 824, 826, 827, 832, 835

Cooperating agency: 212, 662, 671, 771

Council on Environmental Quality: 7, 44, 62, 78, 79, 81, 108, 135, 156, 205, 276, 321, 347, 414, 429, 442, 451, 549, 580, 591, 613, 628, 643, 658, 735, 754, 787, 820, 822

Criteria pollutant: 164, 165, 166, 168, 169, 170, 174, 178, 180, 184, 185, 187, 204, 205, 650, 657, 820

Critical habitat: 40, 360, 377, 378, 379, 380, 381, 382, 383, 384, 397, 398, 400, 401, 809

Cultural resource: 10, 17, 36, 42, 57, 62, 66, 90, 104, 105, 478, 531, 594, 661, 662, 664, 666, 667, 668, 669, 671, 672, 676, 677, 679, 681, 682, 689, 693, 697, 698, 699, 700, 701, 707, 751, 753, 755, 772, 774, 784, 787, 789, 790, 791, 792, 796, 798, 800, 802, 803, 820, 823, 824

Cumulative effect: 3, 11, 108, 135, 156, 203, 205, 276, 277, 297, 321, 347, 414, 429, 442, 444, 450, 451, 452, 454, 486, 506, 508, 509, 512, 549, 580, 591, 605, 610, 613, 643, 644, 658, 659, 664, 666, 697, 754, 820, 821

## D

Direct effect: 134, 161, 203, 315, 427, 513, 579, 621, 653, 654, 655, 656, 657, 697, 821

Direct impact: 103, 104, 105, 133, 157, 269, 300, 307, 313, 314, 321, 326, 336, 337, 348, 360, 387, 389, 391, 392, 394, 396, 397, 398, 399, 400, 401, 402, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 514, 530, 532, 537, 539, 544, 546, 556, 557, 579, 589, 590, 638, 647, 660, 682, 684, 687, 689, 693, 731, 739, 740, 821

Diversion channel: 32, 33, 44, 54, 59, 102, 312, 313, 319, 320, 346, 466, 480, 490, 491, 492, 494, 495, 496, 499, 510, 511, 512

## E

Electrowinning: 9, 26, 83, 86, 102, 129, 178, 436, 556, 563, 565, 567, 573, 578, 819, 829

Emission: 12, 13, 19, 42, 64, 65, 67, 74, 97, 158, 160, 161, 162, 164, 165, 166, 168, 169, 170, 174, 175, 176, 177, 178, 179, 180, 181, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 381, 443, 627, 657, 658, 659, 660, 752, 791, 780, 818, 822

Employment: 20, 104, 107, 701, 702, 703, 705, 708, 713, 714, 715, 716, 717, 719, 720, 728, 729, 731, 738, 739, 741, 742, 743, 746, 753

Endangered Species: 16, 40, 113, 329, 336, 353, 358, 360, 362, 386, 434, 776, 819, 822, 834

Endangered Species Act: 16, 113, 329, 336, 353, 358, 360, 362, 386, 434, 776, 834

Environmental impact statement (EIS): 1, 4, 6, 7, 8, 9, 11, 17, 23, 35, 39, 43, 107, 385, 662, 677, 679, 757, 760, 771, 785, 793, 808, 822, 828, 831, 832

Environmental justice: 104, 524, 610, 612, 700, 702, 703, 704, 705, 707, 734, 735, 737, 738, 751, 752, 753, 754, 755, 771, 773, 787

EPA: 160, 164, 165, 175, 193, 194, 794, 808

Ephemeral stream: 99, 265, 275, 300, 307, 316, 340, 822

Erosion: 12, 32, 33, 34, 59, 71, 72, 74, 75, 86, 116, 136, 137, 139, 141, 142, 143, 144, 147, 148, 156, 157, 178, 179, 298, 302, 303, 305, 313, 316, 322, 326, 328, 330, 336, 337, 338, 347, 348, 349, 376, 414, 435, 463, 482, 483, 496, 509, 573, 595, 649, 697, 776, 797, 818

Evapotranspiration: 220, 223, 237, 254, 267, 268

## F

Fault: 116, 125, 126, 130, 131, 132, 133, 217, 218, 220, 221, 235, 238, 648, 797, 834

Federal Register: 11, 78, 114, 378, 380, 381, 382, 384, 679, 809, 810, 828

Floodplain: 42, 229, 285, 231, 302, 303, 306, 307, 328, 330, 331, 338, 661

Forage: 93, 381, 384, 397, 399, 403, 433, 434, 435, 436, 817, 822, 823

Forest Service: 1, 4, 5, 6, 7, 8, 11, 12, 16, 20, 42, 43, 44, 45, 64, 66, 68, 70, 71, 72, 73, 75, 77, 79, 80, 81, 82, 83, 85, 87, 88, 93, 103, 105, 110, 111, 112, 113, 126, 130, 134, 136, 140, 141, 144, 157, 165, 174, 177, 183, 184, 187, 204, 228, 229, 230, 246, 278, 284, 285, 286, 293, 301, 302, 322, 328, 330, 336, 352, 353, 354, 355, 358, 360, 361, 368, 369, 370, 371, 373, 376, 377, 383, 385, 386, 391, 395, 402, 414, 415, 417, 424, 427, 428, 430, 432, 433,

## Index

434, 435, 437, 439, 440, 441, 442, 447,  
453, 454, 456, 457, 460, 461, 463, 464,  
466, 467, 468, 469, 470, 471, 483, 486,  
496, 507, 510, 511, 513, 516, 517, 518,  
520, 521, 522, 524, 525, 528, 531, 533,  
535, 537, 539, 542, 544, 546, 550, 552,  
558, 559, 583, 584, 585, 586, 592, 593,  
594, 595, 597, 599, 605, 610, 612, 613,  
615, 616, 628, 657, 659, 661, 669, 671,  
675, 679, 682, 685, 707, 708, 716, 720,  
728, 733, 754, 755, 771, 772, 793, 809,  
811, 815, 829, 831, 833

Fossil: 77, 110, 114, 124, 126, 127, 128, 134,  
136, 158, 162, 204

Fragmentation: 15, 69, 100, 209, 323, 352,  
359, 392, 405, 407, 408, 410, 412, 414,  
415, 822

## G

Geological: 12, 20, 75, 77, 86, 100, 104, 110,  
115, 117, 118, 125, 126, 127, 128, 131, 132,  
133, 134, 135, 136, 137, 143, 147, 211,  
213, 216, 220, 224, 228, 229, 238, 240,  
259, 262, 263, 264, 269, 278, 284, 286,  
300, 302, 309, 310, 311, 312, 313, 315,  
317, 318, 319, 320, 321, 322, 325, 327,  
328, 338, 339, 340, 464, 471, 512, 620,  
644, 645, 647, 648, 649, 652, 656, 687,  
751, 774, 775, 783, 786, 788, 789, 790,  
793, 795, 800, 801, 802, 805, 812, 823,  
824, 830, 834

Geology: 97, 107, 109, 110, 116, 117, 127,  
129, 133, 135, 143, 197, 216, 235, 335,  
649, 751, 752, 772, 773, 774, 775, 788,  
790, 791, 805, 809, 811, 823, 825

Groundwater: 13, 14, 29, 32, 40, 41, 75, 76,  
80, 84, 85, 87, 88, 98, 99, 103, 105, 108,  
109, 110, 132, 133, 142, 206, 207, 208,  
209, 210, 211, 212, 213, 215, 216, 217,  
218, 219, 221, 222, 224, 225, 226, 227,  
228, 229, 230, 231, 232, 233, 234, 235,  
237, 238, 245, 246, 252, 253, 254, 259,  
260, 261, 262, 263, 264, 265, 266, 267,  
268, 269, 275, 276, 277, 278, 279, 280,

281, 282, 283, 284, 285, 286, 287, 288,  
289, 290, 291, 292, 293, 295, 296, 297,  
298, 301, 302, 309, 310, 312, 313, 315,  
316, 325, 328, 330, 341, 350, 352, 360,  
363, 369, 387, 388, 389, 390, 391, 392,  
394, 396, 397, 398, 399, 400, 401, 402,  
404, 405, 407, 408, 409, 410, 411, 412,  
413, 414, 416, 437, 553, 554, 556, 557,  
559, 560, 573, 574, 575, 576, 577, 579,  
580, 581, 583, 589, 590, 622, 649, 656,  
658, 659, 660, 681, 685, 698, 748, 774,  
785, 788, 790, 791, 794, 795, 797, 804,  
813, 815, 818, 836

## H

Habitat: 3, 13, 15, 16, 17, 36, 57, 62, 64, 69,  
70, 71, 78, 90, 92, 93, 100, 208, 209, 302,  
303, 307, 312, 323, 325, 326, 327, 328,  
331, 337, 350, 352, 353, 354, 358, 359,  
360, 361, 362, 363, 369, 370, 371, 373,  
374, 376, 377, 378, 379, 380, 381, 382,  
383, 384, 385, 386, 388, 389, 390, 391,  
392, 393, 394, 395, 396, 397, 398, 399,  
400, 401, 402, 403, 404, 406, 407, 409,  
411, 413, 414, 415, 416, 432, 433, 436,  
439, 440, 441, 468, 489, 508, 511, 525,  
550, 552, 585, 588, 594, 697, 701, 727,  
753, 790, 798, 810, 814, 815, 822, 823

Habitat fragmentation: 588, 822, 823

Habitat type: 331, 382, 823

Haul road: 24, 27, 187, 188, 189, 190, 191,  
192, 200, 201, 202, 205, 329, 341, 482,  
490, 491, 493, 494, 495, 497, 499, 512,  
565, 571, 590, 593, 634, 635, 698

Hazardous: 20, 27, 28, 40, 41, 42, 67, 69, 102,  
104, 140, 160, 164, 174, 178, 179, 199,  
279, 280, 390, 415, 553, 554, 555, 556,  
557, 558, 559, 560, 561, 563, 565, 566,  
567, 571, 572, 573, 574, 575, 578, 580,  
583, 587, 589, 590, 592, 644, 645, 647,  
648, 649, 650, 652, 654, 655, 656, 657,  
658, 659, 660, 752, 771, 774, 776, 784,  
801, 810, 818

Highway: 26, 34, 73, 144, 158, 374, 451, 480, 482, 483, 496, 525, 527, 530, 533, 537, 539, 542, 544, 546, 552, 554, 593, 594, 595, 597, 599, 602, 604, 614, 621, 623, 624, 628, 629, 631, 650, 729, 732, 748, 749, 755, 779, 781, 801, 805, 815

Housing: 276, 444, 479, 506, 588, 621, 622, 624, 626, 627, 628, 664, 693, 700, 703, 705, 711, 712, 713, 715, 726, 727, 731, 735, 737, 740, 741, 745, 746, 747, 748, 807

Hydrology: 15, 74, 206, 209, 269, 313, 323, 352, 414, 773, 774, 775, 784, 790, 794, 815, 823

## I

IMPROVE: 175

Indicator species: 16, 353, 354, 358, 361, 385, 386, 404, 406, 408, 409, 411, 413, 803, 826

Indirect effect: 105, 133, 146, 161, 177, 203, 204, 238, 277, 287, 297, 312, 316, 336, 337, 350, 386, 425, 427, 428, 436, 449, 480, 482, 528, 530, 560, 579, 588, 605, 638, 652, 662, 664, 668, 669, 682, 737, 754, 824

Indirect impact: 158, 204, 269, 275, 276, 300, 315, 316, 317, 322, 336, 350, 389, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 404, 406, 407, 409, 410, 411, 413, 489, 521, 537, 544, 549, 610, 612, 613, 687, 693, 697, 701, 739, 742, 754, 824

Infiltration: 32, 33, 49, 57, 75, 99, 231, 282, 283, 288, 289, 292, 297, 341, 394, 574, 787, 800, 801, 804, 832

Interim management: 361

Intermittent stream: 208, 210, 211, 238, 309, 333, 378, 382, 794, 824, 835

## K

Key observation point: 468

## L

Land ownership: 68, 391, 427

Land use: 1, 5, 6, 8, 36, 322, 330, 333, 424, 468, 471, 478, 501, 559, 617, 621, 623, 624, 627, 628, 629, 731, 738, 744, 750, 751, 752, 755, 772, 773, 789, 798, 799, 825

Light: 9, 15, 17, 19, 27, 45, 69, 118, 122, 125, 174, 175, 192, 194, 350, 352, 353, 384, 392, 396, 397, 398, 399, 400, 401, 402, 404, 414, 416, 443, 444, 446, 448, 449, 450, 451, 452, 453, 472, 473, 476, 478, 481, 482, 487, 490, 496, 498, 505, 509, 510, 511, 535, 551, 562, 564, 565, 568, 576, 577, 599, 601, 619, 651, 698, 734, 750, 786, 794, 817, 821

Listed species: 360, 834

## M

Mine footprint: 18, 67, 100, 147, 157, 327, 375, 379, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 404, 407, 409, 411, 453, 505, 625, 664, 738, 747

Mine plan of operations (MPO): 1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 23, 25, 38, 39, 40, 42, 43, 44, 46, 65, 69, 70, 71, 78, 79, 80, 82, 83, 84, 87, 88, 89, 96, 130, 147, 197, 278, 415, 482, 503, 504, 559, 560, 571, 589, 605, 612, 614, 656, 660, 676, 742, 793, 799, 802, 813, 826, 829, 830

Mineral rights: 5, 82, 83, 826

Minerals: 1, 5, 6, 82, 83, 86, 93, 97, 107, 109, 110, 111, 112, 113, 118, 125, 129, 130, 133, 135, 143, 235, 278, 289, 341, 402, 447, 467, 517, 628, 674, 687, 724, 759, 773, 774, 775, 795, 809, 811, 815, 817, 818, 819, 821, 824, 825, 826, 828

Mitigation: 3, 7, 12, 18, 20, 43, 44, 46, 62, 64, 67, 72, 73, 74, 75, 76, 77, 78, 79, 80, 85, 99, 103, 104, 108, 113, 136, 157, 166, 184, 188, 190, 192, 197, 201, 202, 203, 277, 278, 284, 295, 297, 300, 316, 321, 322,

## Index

- 341, 342, 347, 348, 349, 350, 414, 416, 417, 424, 429, 430, 442, 452, 453, 482, 484, 486, 487, 488, 490, 493, 499, 500, 501, 505, 506, 508, 509, 510, 511, 512, 514, 551, 552, 580, 583, 591, 593, 594, 601, 605, 608, 612, 613, 614, 615, 624, 629, 644, 647, 659, 660, 668, 669, 671, 699, 701, 737, 748, 749, 754, 787, 794, 798, 827, 831
- Monitoring: 3, 7, 32, 40, 42, 43, 44, 64, 66, 70, 75, 76, 78, 79, 80, 92, 108, 133, 134, 136, 139, 140, 144, 145, 164, 165, 166, 170, 171, 172, 173, 174, 175, 180, 183, 187, 212, 217, 229, 235, 253, 285, 286, 291, 303, 305, 309, 310, 322, 329, 331, 341, 342, 346, 347, 348, 378, 379, 381, 434, 435, 456, 467, 510, 529, 587, 625, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 640, 650, 715, 728, 752, 754, 784, 785, 787, 788, 792, 794, 798, 801, 811, 812, 819, 831
- ## N
- National Ambient Air Quality Standard (NAAQS): 97, 104, 158, 162, 163, 164, 165, 168, 169, 170, 172, 173, 174, 177, 180, 184, 185, 186, 188, 189, 190, 191, 192, 201, 202, 203, 204, 205, 206, 647, 650, 657, 752, 818, 819, 820, 827
- National Conservation Area: 307, 375, 378, 379, 382, 385, 394, 457, 469, 474, 477, 498, 514, 524, 526, 532, 533, 535, 697, 698, 747, 799, 800
- National Register of Historic Places: 17, 66, 469, 662, 663, 664, 671, 672, 675, 676, 677, 678, 681, 682, 683, 684, 689, 693, 695, 699, 827
- Noise: 15, 17, 19, 20, 69, 103, 104, 109, 350, 352, 353, 384, 392, 396, 397, 398, 399, 400, 401, 402, 403, 404, 414, 416, 513, 530, 531, 532, 535, 542, 612, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 647, 648, 649, 650, 652, 657, 687, 693, 696, 705, 734, 745, 746, 747, 749, 750, 751, 752, 771, 781, 789, 796, 798, 800, 804, 808
- Notice of Intent: 11, 228, 679, 828
- Noxious weed: 70, 103, 150, 362, 394, 415, 581, 583, 589, 590, 591, 828
- ## O
- Off-highway vehicle (OHV): 72, 144, 177, 475, 477, 480, 485, 500, 507, 517, 520, 525, 527, 533, 537, 539, 544, 546, 553, 590, 650, 728, 729, 733, 746, 783, 788, 801
- Ore: 1, 4, 5, 7, 9, 24, 25, 26, 27, 29, 33, 46, 65, 72, 75, 79, 82, 83, 84, 86, 87, 110, 113, 117, 125, 128, 129, 133, 136, 164, 177, 178, 198, 199, 288, 312, 313, 340, 341, 348, 446, 449, 482, 483, 493, 531, 559, 563, 566, 612, 615, 675, 679, 750, 805, 818, 819, 821, 822, 823, 825, 828, 829, 830, 831, 832, 833, 835
- Overburden: 84, 128, 828
- Ozone: 97, 162, 163, 164, 165, 168, 170, 819
- ## P
- Paleontology: 97, 107, 109, 110, 113, 126, 134, 135, 143, 235, 751, 752, 773, 774, 801
- Particulate matter: 13, 64, 158, 160, 161, 168, 169, 170, 179, 194, 201, 203, 650, 819, 820, 828, 829, 834
- Patented claim: 424, 828
- Perennial stream: 98, 105, 217, 226, 227, 228, 262, 263, 264, 265, 266, 307, 369, 381, 403, 526, 828
- Permeability: 51, 57, 83, 238
- Pit: 1, 4, 7, 9, 13, 14, 15, 18, 23, 24, 26, 27, 28, 29, 32, 33, 36, 49, 59, 64, 69, 70, 71, 74, 82, 83, 84, 85, 86, 96, 97, 98, 99, 102, 103, 107, 110, 111, 117, 130, 133, 146, 147,

- 151, 156, 158, 177, 180, 187, 189, 200, 206, 208, 209, 211, 216, 217, 218, 220, 221, 222, 223, 224, 226, 227, 230, 235, 237, 238, 240, 244, 254, 259, 260, 261, 265, 266, 267, 268, 269, 270, 271, 272, 273, 275, 279, 280, 282, 283, 285, 287, 288, 292, 293, 294, 295, 296, 297, 298, 303, 312, 313, 317, 318, 319, 320, 323, 336, 340, 341, 342, 346, 348, 350, 352, 387, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 404, 405, 407, 408, 410, 412, 414, 415, 416, 425, 427, 428, 436, 439, 440, 441, 443, 446, 449, 453, 463, 466, 479, 480, 481, 482, 483, 487, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 501, 502, 503, 505, 506, 507, 510, 511, 512, 516, 530, 531, 532, 535, 539, 542, 544, 550, 551, 557, 563, 568, 571, 574, 575, 576, 577, 579, 610, 612, 615, 620, 621, 625, 629, 633, 634, 635, 636, 637, 638, 639, 649, 674, 684, 703, 727, 742, 744, 745, 746, 755, 795, 804, 813, 817, 820, 823, 824, 829, 830, 831
- Population: 16, 100, 103, 104, 353, 356, 358, 360, 371, 374, 375, 377, 380, 382, 393, 394, 395, 396, 397, 398, 399, 402, 403, 405, 406, 407, 409, 411, 413, 448, 449, 478, 479, 506, 518, 526, 527, 529, 605, 610, 612, 647, 652, 653, 660, 664, 673, 674, 687, 693, 696, 697, 698, 700, 702, 703, 705, 706, 708, 709, 710, 712, 724, 727, 731, 733, 734, 735, 736, 737, 739, 740, 741, 746, 747, 748, 780, 792, 798, 806, 807, 826, 834
- Preferred alternative: 57, 423, 668, 677, 693, 695, 696, 829
- Proposed action: 3, 6, 23, 46, 51, 96, 97, 98, 111, 134, 139, 151, 162, 163, 180, 226, 268, 283, 284, 297, 300, 314, 315, 317, 318, 326, 337, 338, 359, 405, 406, 407, 423, 432, 436, 441, 447, 450, 465, 488, 491, 492, 494, 496, 498, 499, 500, 502, 509, 513, 532, 556, 557, 580, 583, 591, 593, 613, 626, 640, 647, 658, 668, 683, 684, 689, 705, 707
- Public access: 23, 35, 73, 93, 103, 107, 516, 522, 529, 530, 531, 537, 539, 544, 546, 549, 550, 551, 552, 592, 594, 605, 610, 612, 615
- Public involvement: 11
- ## R
- Rangeland: 139, 140, 144, 145, 433, 434, 435, 436, 439, 440, 441, 467, 526, 773, 785, 794, 801, 810, 827, 830
- Reclamation: 1, 6, 7, 8, 12, 15, 17, 18, 32, 33, 34, 35, 36, 41, 42, 43, 46, 51, 57, 59, 62, 66, 67, 68, 69, 70, 71, 72, 73, 74, 79, 80, 84, 85, 86, 92, 93, 97, 109, 111, 113, 137, 139, 140, 141, 142, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 160, 177, 265, 276, 298, 313, 322, 341, 348, 349, 352, 378, 379, 381, 392, 415, 416, 429, 430, 432, 436, 439, 440, 441, 442, 443, 453, 454, 463, 465, 467, 482, 486, 507, 509, 510, 511, 512, 516, 529, 530, 531, 550, 552, 553, 559, 571, 581, 591, 626, 628, 640, 645, 649, 662, 663, 687, 699, 700, 703, 705, 738, 754, 755, 757, 773, 775, 792, 793, 794, 801, 803, 804, 809, 810, 831
- Record of Decision (ROD): 8, 9, 10, 40, 42, 43, 77, 78, 79, 89, 92, 95, 785, 831
- Recreation: 8, 17, 19, 36, 46, 57, 64, 66, 72, 90, 92, 102, 103, 104, 144, 253, 316, 376, 414, 433, 443, 447, 456, 467, 473, 474, 477, 480, 482, 486, 507, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 535, 536, 537, 539, 540, 542, 543, 544, 546, 547, 549, 550, 551, 552, 553, 559, 589, 590, 594, 610, 612, 616, 626, 640, 641, 642, 643, 645, 647, 648, 649, 650, 652, 656, 662, 671, 676, 698, 702, 703, 705, 715, 716, 717, 720, 727, 728, 729, 730, 731, 732, 733, 734, 738, 742, 743, 744, 746, 747, 748, 749, 750, 751, 752, 754, 755, 772, 775, 783, 799, 801, 810, 811

Index

Resource management plan: 1, 6, 44, 78, 89, 115, 424, 469, 669, 785, 809

Right-of-way: 41, 42, 71, 113, 463, 471, 482, 483, 484, 495, 500, 524, 542, 831

Riparian: 15, 100, 105, 209, 267, 323, 325, 331, 352, 359, 360, 368, 369, 370, 389, 391, 761, 772, 784, 798, 799, 814, 815, 831

Riparian area: 15, 57, 90, 100, 141, 206, 209, 229, 241, 243, 268, 285, 303, 307, 313, 325, 331, 336, 337, 339, 349, 350, 352, 370, 371, 381, 382, 384, 387, 389, 390, 414, 415, 416, 590, 831

Road density: 831

Runoff: 14, 32, 33, 34, 41, 49, 51, 54, 57, 99, 147, 209, 231, 238, 265, 277, 279, 282, 293, 298, 301, 305, 309, 311, 313, 315, 316, 317, 318, 319, 320, 321, 322, 326, 329, 333, 338, 339, 340, 341, 346, 347, 348, 349, 381, 394, 396, 397, 398, 399, 401, 409, 411, 413, 574, 575, 579, 815, 831

**S**

Scope: 11, 43, 44, 88, 142, 164, 350, 454, 456, 477, 679, 682

Scoping: 11, 12, 17, 45, 81, 82, 88, 107, 109, 136, 238, 280, 282, 296, 417, 430, 454, 553, 581, 592, 644, 662, 664, 671, 681, 693, 701, 702, 703, 798, 811, 832

Sediment: 12, 14, 15, 33, 49, 72, 97, 110, 111, 126, 136, 137, 139, 140, 144, 146, 147, 148, 156, 157, 231, 262, 264, 265, 266, 268, 269, 277, 309, 313, 316, 320, 323, 325, 327, 329, 333, 336, 337, 338, 339, 340, 342, 346, 348, 349, 350, 481, 489, 494, 509, 748, 776, 797, 815, 818, 819, 832, 833

Seepage: 32, 49, 57, 84, 99, 230, 231, 279, 282, 283, 288, 289, 290, 291, 292, 295, 296, 297, 341, 342, 343, 344, 345, 346, 390, 489, 787, 800, 801, 804, 832

Sensitive species: 16, 100, 353, 360, 361, 386, 832

Significance: 4, 41, 89, 95, 107, 174, 246, 464, 578, 620, 621, 623, 634, 639, 640, 642, 643, 661, 671, 672, 675, 681, 699, 794, 827, 832

Socioeconomics: 20, 104, 107, 524, 610, 612, 700, 701, 703, 704, 705, 707, 738, 753, 754, 755, 771, 773, 776

Soil: 12, 36, 39, 46, 57, 68, 74, 90, 93, 97, 103, 115, 118, 130, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 156, 157, 167, 170, 173, 174, 175, 194, 195, 197, 298, 337, 338, 354, 369, 370, 373, 375, 376, 383, 392, 394, 433, 435, 436, 442, 460, 463, 472, 473, 475, 476, 480, 481, 484, 488, 489, 491, 493, 494, 496, 510, 511, 525, 550, 553, 554, 556, 557, 559, 560, 573, 574, 575, 576, 577, 579, 580, 649, 689, 700, 751, 753, 773, 775, 793, 796, 799, 808, 810, 812, 818, 823, 824, 825, 828, 831, 832, 833, 834, 836

Solvent extraction: 9, 26, 83, 86, 102, 129, 177, 199, 436, 556, 561, 563, 565, 567, 742, 830, 833

Special status species: 16, 353, 373, 392, 405, 407, 409, 411, 413, 783, 786

Spring: 14, 15, 16, 18, 36, 67, 98, 100, 101, 104, 105, 133, 206, 208, 209, 210, 211, 220, 222, 227, 228, 237, 238, 239, 240, 241, 242, 243, 244, 245, 254, 259, 260, 261, 262, 264, 265, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 279, 286, 287, 297, 298, 302, 306, 309, 310, 311, 312, 313, 315, 316, 322, 323, 325, 331, 333, 336, 337, 350, 352, 353, 359, 363, 364, 369, 373, 374, 377, 378, 379, 381, 388, 389, 391, 394, 396, 397, 398, 399, 400, 401, 405, 406, 407, 408, 409, 410, 411, 412, 413, 416, 430, 432, 434, 436, 437, 438, 439, 440, 441, 442, 482, 575, 585, 590, 597, 599, 626, 661, 663, 668, 669, 674, 679, 680, 685, 686, 687, 689, 696, 699, 748, 783, 804, 813, 815, 818, 819, 826



Stormwater: 29, 32, 33, 34, 41, 43, 44, 49, 51, 52, 54, 56, 57, 59, 61, 62, 67, 71, 74, 75, 77, 96, 99, 105, 147, 228, 262, 265, 268, 277, 288, 289, 297, 300, 301, 309, 312, 313, 315, 316, 317, 318, 319, 320, 321, 322, 326, 328, 329, 333, 336, 338, 340, 342, 346, 347, 348, 349, 397, 401, 454, 482, 487, 488, 509, 510, 557, 572, 573, 574, 579, 580, 659, 786, 793

Subsidence: 14, 104, 110, 132, 133, 208, 233, 235, 236, 253, 277, 647, 648, 649, 656, 658, 660, 781, 786

Surface water:, 14, 15, 16, 33, 40, 49, 51, 54, 57, 59, 62, 72, 75, 80, 99, 100, 103, 136, 142, 157, 208, 209, 210, 230, 237, 254, 278, 279, 282, 285, 294, 295, 297, 298, 299, 300, 301, 302, 305, 306, 307, 308, 310, 312, 313, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 333, 335, 336, 337, 340, 341, 342, 346, 347, 348, 349, 350, 352, 383, 387, 388, 389, 390, 391, 392, 394, 396, 397, 398, 399, 400, 401, 442, 553, 554, 556, 559, 560, 573, 574, 579, 580, 649, 748, 754, 781, 812

## T

Threatened and endangered species: 90, 93, 594, 834

Total suspended particulates: 834

Traditional cultural property: 104, 668, 669, 672, 681, 684, 687, 689, 695, 696, 699, 797

Trail: 19, 20, 45, 59, 60, 61, 72, 77, 92, 96, 97, 98, 102, 105, 108, 111, 134, 135, 139, 144, 147, 148, 151, 156, 162, 163, 177, 181, 189, 190, 201, 204, 226, 275, 283, 284, 300, 314, 315, 319, 320, 325, 326, 337, 338, 359, 382, 387, 410, 411, 412, 417, 421, 423, 432, 440, 441, 447, 448, 451, 454, 457, 461, 462, 463, 465, 466, 467, 470, 471, 474, 475, 477, 478, 479, 480, 481, 482, 483, 485, 490, 493, 494, 495, 496, 497, 498, 499, 501, 502, 503, 506, 507, 508, 510, 511, 512, 513, 514, 516, 517,

518, 520, 521, 522, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 535, 537, 539, 542, 543, 544, 545, 546, 549, 550, 551, 552, 556, 557, 583, 593, 594, 612, 616, 625, 626, 629, 638, 641, 642, 643, 647, 650, 668, 677, 683, 684, 685, 689, 692, 693, 697, 705, 707, 715, 733, 747, 752, 755, 758, 759, 766, 783, 784, 786, 799, 811, 831

Transportation: 1, 7, 12, 16, 18, 20, 26, 35, 40, 41, 73, 74, 77, 85, 88, 103, 104, 105, 108, 137, 158, 160, 333, 350, 353, 360, 392, 414, 453, 468, 481, 503, 517, 526, 527, 528, 531, 551, 553, 554, 556, 557, 558, 559, 560, 565, 575, 578, 579, 580, 581, 583, 589, 590, 592, 593, 594, 595, 596, 597, 599, 601, 602, 604, 605, 610, 612, 613, 614, 615, 621, 623, 624, 627, 628, 629, 645, 647, 648, 649, 651, 652, 654, 655, 657, 659, 661, 684, 698, 702, 716, 717, 722, 723, 730, 732, 748, 749, 750, 751, 753, 754, 831, 758, 760, 772, 776, 779, 781, 787, 798, 799, 805, 815

Tribal consultation: 3, 10, 664, 671, 678, 680, 757, 772, 774

Tribe: 678, 679, 680, 735, 737, 751, 757

## U

U.S. Army Corps of Engineers: 1, 3, 4, 7, 9, 10, 11, 23, 33, 39, 40, 42, 43, 45, 78, 81, 82, 298, 300, 315, 322, 326, 329, 331, 757, 768, 805, 814

U.S. Census Bureau: 700, 708, 709, 711, 712, 713, 719, 720, 721, 726, 735, 736, 737, 740, 741, 806

U.S. Department of Agriculture Forest Service: 1, 771, 811

U.S. Environmental Protection Agency: 40, 42, 43, 65, 75, 81, 160, 164, 168, 172, 173, 174, 175, 176, 177, 178, 180, 183, 194, 195, 199, 200, 201, 202, 284, 329, 557, 572, 621, 627, 628, 649, 658, 734, 757, 768, 790, 794, 798, 808, 818, 820, 829, 835

## Index

U.S. Forest Service: 1, 6, 11, 40, 42, 44, 70, 77, 80, 81, 82, 89, 111, 115, 128, 140, 141, 161, 174, 196, 229, 285, 286, 312, 361, 373, 376, 377, 385, 424, 433, 434, 435, 453, 454, 456, 457, 463, 464, 465, 467, 471, 478, 483, 510, 516, 517, 518, 520, 522, 525, 529, 533, 558, 584, 585, 587, 588, 593, 594, 595, 669, 676, 682, 707, 716, 720, 728, 729, 783, 784, 785, 786, 787, 788, 789, 790, 792, 793, 794, 795, 799, 800, 802, 803, 809, 810, 811, 812, 813, 815, 826, 834

United States Code (USC): 89, 112, 114, 174, 328, 360, 361, 424, 425, 433, 470, 516, 517, 558, 623, 627, 648, 669, 671, 681, 819

## V

Vegetation: 12, 15, 36, 54, 69, 71, 74, 97, 100, 103, 105, 136, 137, 139, 144, 145, 146, 147, 148, 149, 151, 156, 167, 168, 176, 208, 240, 241, 242, 243, 244, 267, 277, 288, 315, 316, 322, 325, 331, 333, 337, 338, 350, 352, 354, 359, 360, 363, 367, 368, 369, 370, 373, 374, 375, 376, 377, 378, 379, 381, 382, 383, 386, 387, 388, 389, 391, 392, 400, 401, 402, 403, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 416, 433, 434, 435, 436, 439, 440, 441, 443, 444, 454, 456, 457, 460, 463, 471, 472, 473, 474, 475, 476, 480, 481, 482, 483, 484, 485, 487, 488, 489, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 505, 506, 507, 509, 510, 511, 526, 535, 550, 552, 554, 556, 559, 560, 573, 579, 581, 583, 585, 587, 588, 589, 590, 591, 633, 662, 750, 751, 753, 772, 786, 794, 799, 819, 830, 833, 834, 836

Viewshed: 1, 86, 465, 467, 474, 476, 477, 486, 496, 501, 502, 503, 505, 506, 687, 745, 750, 834

Visual quality: 64, 74, 77, 454, 456, 467, 469, 477, 479, 481, 484, 486, 506, 508, 511, 529, 552, 594, 750, 772, 834

Visual resource: 18, 51, 59, 90, 92, 101, 452, 453, 454, 455, 456, 457, 460, 461, 464, 465, 467, 468, 469, 484, 485, 502, 512, 521, 522, 524, 529, 530, 531, 532, 533, 537, 539, 544, 546, 552, 705, 750, 754, 774, 775, 785, 834

## W

Waste rock: 1, 7, 12, 14, 18, 20, 23, 24, 26, 27, 28, 32, 33, 34, 36, 44, 45, 46, 49, 51, 54, 57, 59, 62, 64, 65, 67, 68, 71, 72, 75, 76, 84, 85, 86, 96, 97, 99, 100, 102, 107, 110, 128, 131, 133, 136, 137, 139, 144, 145, 146, 147, 148, 149, 150, 151, 156, 157, 177, 179, 180, 187, 188, 189, 190, 192, 197, 201, 209, 268, 279, 280, 282, 283, 288, 289, 290, 291, 296, 297, 298, 313, 317, 318, 319, 320, 323, 327, 329, 338, 340, 341, 342, 343, 344, 346, 347, 348, 349, 387, 390, 391, 403, 405, 408, 410, 412, 413, 416, 425, 427, 428, 436, 442, 453, 463, 466, 479, 480, 481, 482, 483, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 505, 506, 509, 510, 511, 512, 531, 532, 535, 539, 542, 544, 546, 549, 552, 553, 554, 571, 574, 615, 634, 635, 636, 638, 644, 676, 680, 684, 689, 698, 823, 835

Water quality: 14, 15, 34, 99, 105, 139, 147, 229, 280, 282, 283, 284, 285, 286, 287, 289, 290, 291, 292, 293, 294, 296, 313, 323, 326, 328, 331, 333, 340, 341, 342, 343, 344, 345, 346, 347, 348, 352, 360, 363, 387, 390, 753, 780, 805

Water quantity: 4, 99, 297, 321, 323, 330, 363, 387, 753

Water rights: 87, 88, 238, 302, 310

Water supply: 29, 30, 36, 74, 75, 133, 206, 209, 211, 213, 215, 216, 217, 229, 230, 232, 233, 235, 238, 245, 246, 247, 253, 254, 277, 278, 279, 280, 284, 295, 300, 326, 330, 369, 587, 656, 665, 670, 689, 693, 748

Waters of the United States: 4, 9, 39, 40, 43, 57, 78, 81, 100, 305, 325, 326, 327, 328, 329, 330, 331, 332, 336, 337, 348, 350, 390, 835, 836

Watershed: 93, 144, 148, 228, 284, 302, 306, 307, 309, 311, 315, 317, 328, 338, 758, 772, 773, 776, 793, 794, 809, 812, 835

Wilderness: 19, 97, 102, 113, 144, 158, 163, 164, 173, 174, 180, 193, 195, 196, 443, 447, 473, 474, 477, 482, 496, 512, 513, 514, 516, 517, 518, 520, 521, 522, 528, 530, 532, 533, 535, 537, 539, 544, 546, 610, 612, 616, 650, 698, 746, 747, 753, 755, 772, 775, 810, 811, 829

Wildfire: 205, 206, 471, 479, 480, 507, 550, 551, 581, 583, 584, 587, 836

Wildlife: 15, 16, 17, 36, 40, 57, 64, 69, 71, 73, 75, 90, 93, 100, 103, 209, 278, 279, 280, 294, 295, 310, 312, 315, 316, 322, 325, 329, 333, 335, 350, 352, 353, 354, 358, 359, 360, 361, 371, 372, 375, 377, 378, 379, 380, 381, 382, 385, 386, 390, 392, 397, 400, 401, 414, 415, 416, 433, 442, 508, 511, 512, 517, 526, 529, 552, 554, 556, 557, 559, 573, 575, 576, 577, 579, 585, 594, 612, 616, 627, 662, 701, 727, 728, 729, 733, 753, 755, 757, 759, 768, 771, 772, 773, 776, 781, 784, 788, 790, 792, 793, 796, 801, 808, 809, 810, 811, 812, 819, 822, 823, 826