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WQCC DRAFT

Appendix B

New Mexico Water Quality Impairment Causes and Probable Sources

Cause Summary for Stream/River Water Quality Impairments	Total Size (miles)
AMMONIA	49.08
Ammonia, total	49.08
CAUSE UNKNOWN - IMPAIRED BIOTA	176.71
Benthic macroinvert. community	176.71
FLOW ALTERATION(S)	183.76
Low flow alterations	183.76
MERCURY	111.16
Mercury, total	111.16
METALS (OTHER THAN MERCURY)	989.2
Aluminum, dissolved (old WQC)	381.75
Aluminum, total rec - chronic	31.32
Aluminum, total rec -- acute	16.63
Arsenic, dissolved	77.6
COPPER, ACUTE	8.12
COPPER, CHRONIC	4.61
Cadmium, dissolved	7.56
Lead, dissolved	7.56
Sedimentation/Siltation	429.17
Selenium, total recoverable	22.46
Thallium, dissolved	2.22
ZINC, ACUTE	0.2
NUTRIENTS	1233.63
Nutrient/Eutrophication	1210.13
Phosphorus, total	23.5
ORGANIC ENRICHMENT/OXYGEN DEPLETION	441.26
Dissolved oxygen	441.26
PATHOGENS	1159.91
E. coli	1159.91
PESTICIDES	140.74
DDT in Fish Tissue	140.74
PH/ACIDITY/CAUSTIC CONDITIONS	62.04
pH	62.04
POLYCHLORINATED BIPHENYLS (PCBS)	539.59
PCB in Fish Tissue	288.13
PCB in Water Column	251.46

RADIATION	134.58
Gross alpha, adjusted	113.73
Radium 226+228	7.04
Uranium, dissolved	6.77
SALINITY/TOTAL DISSOLVED SOLIDS/CHLORIDES/SULFATES	413.92
Specific conductance	281.62
Sulfates	54.59
Total dissolved solids	77.71
TEMPERATURE	1600.59
Temperature	1600.59
TOTAL TOXICS	11.66
Ambient bioassays -- acute	11.66
TOXIC INORGANICS	83.77
Boron, dissolved	83.77
TURBIDITY	605.55
Turbidity	605.55

NOTES:

This information is generated using SQUID. In some instances, more than a single cause of water quality impairment was identified for a particular waterbody. Where waterbodies have more than one cause of impairment, the appropriate waterbody length is entered in each category.

Causes Summary for Lake/Reservoir Water Quality Impairments	Total Size(acres)
MERCURY	60208.07
Mercury in fish tissue	60010.07
Mercury, total	198
METALS (OTHER THAN MERCURY)	5434.51
Aluminum	3767.75
Arsenic, dissolved	1666.76
NUTRIENTS	8652.05
Nutrient/Eutrophication	8652.05
ORGANIC ENRICHMENT/OXYGEN DEPLETION	1332
Dissolved oxygen	1332
PESTICIDES	3058.67
DDT	3058.67
PH/ACIDITY/CAUSTIC CONDITIONS	30
pH	30
POLYCHLORINATED BIPHENYLS (PCBS)	24489.93
PCB in Fish Tissue	24489.93
TEMPERATURE	18160.08
Temperature	18160.08

NOTES:

This information is generated using SQUID. In some instances, more than a single cause of water quality impairment was identified for a particular waterbody. Where waterbodies have more than one cause of impairment, the appropriate waterbody length is entered in each category.

Probable Sources Summary for Stream/River Water Quality Impairments	Total Size (miles)
AGRICULTURE	2235.11
ANIMAL FEEDING OPERATIONS (NPS)	109.55
Agriculture	72.66
Confined Animal Feeding Operations (CAFOs)	64.25
Crop or Dry Land Construction	89.03
Irrigated Crop Production	169.79
Livestock (Grazing or Feeding Operations)	266.02
Rangeland Grazing	1463.81
AQUACULTURE	27.53
AQUACULTURE (PERMITTED)	27.53
CONSTRUCTION	204.57
CONSTRUCTION	4.96
LAND DEVELOPMENT	3.19
Road/Bridge/Infrastructure Construction	54.1
Site Clearance (New Development or Infill)	142.32
HABITAT ALTERATIONS (NOT DIRECTLY RELATED TO HYDROMODIFICATION)	778.55
Habitat Modification	146.08
Loss of Riparian Habitat	632.47
HYDROMODIFICATION	1304.7
Baseflow Depletion	66.32
Channelization	97.21
DREDGING - AGRICULTURE	52.33
Dam or Impoundment	37.09
Dredging for Navigation Channels	10.01
Flow Alterations from Water Diversions	470.28
STREAMBANK MODIFICATION/DESTABILIZATION - AGRICULTURE	16.83
Streambank Modifications/destabilization	554.63
INDUSTRIAL	70.22
Mill Tailings	29.43
Petroleum/Natural Gas Activities (Permitted)	34.99
RCRA Hazardous Waste Sites	5.8
MUNICIPAL DISCHARGES/SEWAGE	1100.89
Municipal Point Source Discharges	422.28
On-site Treatment Systems (Septic)	678.61

NATURAL/WILDLIFE	1750.95
Drought-related Impacts	474.16
Natural Sources	313.27
Waterfowl	450.68
Wildlife Other than Waterfowl	512.84
OTHER	128.88
Low Water Crossing	97.08
Rural (Residential Areas)	31.8
RECREATION AND TOURISM (NON-BOATING)	403.12
Off-road Vehicles	57.54
Recreational Pollution Sources	345.58
RESOURCE EXTRACTION	93.59
ACID MINE DRAINAGE	8.33
Abandoned Mine Lands	23.29
MINING	10.85
Mining Reclamation	5.8
Petroleum/Natural Gas Activities	34.99
Surface Mining	10.33
SILVICULTURE (FORESTRY)	333.08
Forest Roads (Road Construction and Use)	82.77
Silviculture Fire Suppression	97.15
Silviculture Harvesting	60.34
Watershed Runoff following Forest Fire	92.82
SPILLS/DUMPING	126.79
ILLEGAL DUMPS OR OTHER INAPPROPRIATE WASTE DISPOSAL	16.83
Inappropriate Waste Disposal	109.96
UNKNOWN	4779.53
Source Unknown*	4779.53
URBAN-RELATED RUNOFF/STORMWATER	1384.53
Impervious Surface/Parking Lot Runoff	407.73
MS4 Discharges	71.26
Municipal (High Density Area)	166
Road/Bridge Runoff	414.23
Urban Runoff/Storm Sewers	29.73
Wastes from Pets	295.58

NOTES:

This information is generated using SQUID. In most instances, more than a single source contributed to water quality impairment. Where waterbodies have more than one source of impairment, the appropriate waterbody length is entered in each category

* Any new impairment listing are assigned a Probable Source of “Source Unknown.” For the 2014 listing cycle, SWQB removed previously-reported non-TMDL Probable Source lists from the Report List, and replaced them with “Source Unknown” for consistency throughout the list with respect to this approach. Therefore, all reported Probable Source lists on the Integrated List now have been through the TMDL process.

Probable Sources Summary for Lakes/Reservoirs Water Quality Impairments	Total Size (acres)
UNKNOWN Source Unknown*	121365.31 121365.31

NOTES:

* Based on SWQB’s revised approach for determining probable sources, and the fact that the state has not yet written any lake TMDLS, all lake and reservoir impairments have been assigned a probably source of “source unknown”. However, it is likely that atmospheric deposition of toxics will continue to be the dominant probable source, as was indicated in the 2012 Integrated Report (<http://www.nmenv.state.nm.us/swqb/303d-305b/2012-2014/2012-2014USEPA-ApprovedNMReport.pdf>).