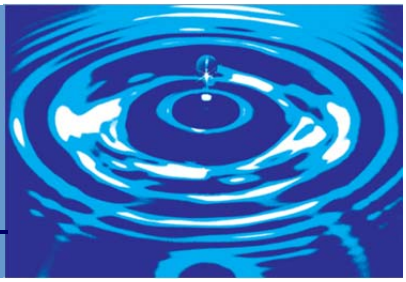
State of New Mexico

Water Quality Control Commission



FINAL

2016 - 2018

State of New Mexico Clean Water Act Section 303(d)/Section 305(b) Integrated Report

APPENDIX B –

Water Quality Impairment Causes and Probable Sources

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Cause Summary for Stream/River Water Quality Impairments	Total Size (miles)
AMMONIA	**49.08**
Ammonia, total	49.08
CAUSE UNKNOWN - IMPAIRED BIOTA	**154.26**
Benthic macroinvert. community	154.26
FLOW ALTERATION(S)	**166.99**
Low flow alterations	166.99
MERCURY	**111.16**
Mercury, total	111.16
METALS (OTHER THAN MERCURY)	**1080.76**
Aluminum, dissolved (old WQC)	192.37
Aluminum, total rec - chronic	233.26
Aluminum, total rec -- acute	121
Arsenic, dissolved	58.67
COPPER, ACUTE	10.06
COPPER, CHRONIC	25
Cadmium, dissolved	7.56
Lead, dissolved	7.56
Sedimentation/Siltation	355.04
Selenium, total recoverable	45.14
Thallium, dissolved	24.9
ZINC, ACUTE	0.2
NUTRIENTS	**1288.05**
Nutrient/Eutrophication	1264.55
Phosphorus, total	23.5
ORGANIC ENRICHMENT/OXYGEN DEPLETION	**314.79**
Dissolved oxygen	314.79
PATHOGENS	**1176.92**
E. coli	1176.92
PESTICIDES	**140.73**
DDT in fish tissue	140.73
PH/ACIDITY/CAUSTIC CONDITIONS	**44.26**
pH	44.26
POLYCHLORINATED BIPHENYLS (PCBS)	**565.74**
PCB in Fish Tissue	288.22
PCB in Water Column	277.52

RADIATION	**137.95**
Gross alpha, adjusted	117.1
Radium 226	7.04
Radium 228	7.04
Uranium, dissolved	6.77
SALINITY/TOTAL DISSOLVED SOLIDS/CHLORIDES/SULFATES	**407.9**
Specific conductance	275.6
Sulfates	54.59
Total dissolved solids	77.71
TEMPERATURE	**1773.46**
Temperature	1773.46
TOXIC INORGANICS	**70.91**
Boron, dissolved	48.23
Cyanide, total recoverable	22.68
TURBIDITY	**633.37**
Turbidity	633.37

Cause Summary for Lake/Reservoir Water Quality Impairments	Total Size (miles)
MERCURY	**50788.35**
Mercury in fish tissue	50788.35
METALS (OTHER THAN MERCURY)	**5450.19**
Aluminum	3783.43
Arsenic, dissolved	1666.76
NUTRIENTS	**12913.19**
Nutrient/Eutrophication	12913.19
ORGANIC ENRICHMENT/OXYGEN DEPLETION	**1332**
Dissolved oxygen	1332
PESTICIDES	**2423.45**
DDT in fish tissue	2423.45
PH/ACIDITY/CAUSTIC CONDITIONS	**126.13**
pH	126.13
POLYCHLORINATED BIPHENYLS (PCBS)	**21754.8**
PCB in Fish Tissue	21754.8
TEMPERATURE	**17842.36**
Temperature	17842.36

Source Summary for Stream/River Water Quality Impairments	Total Size (miles)
AGRICULTURE	**2612.34**
ANIMAL FEEDING OPERATIONS (NPS)	143.09
Agriculture	72.66
Confined Animal Feeding Operations (CAFOs)	64.25
Crop or Dry Land Construction	89.03
Irrigated Crop Production	204.46
Livestock (Grazing or Feeding Operations)	273.62
Rangeland Grazing	1765.23
AQUACULTURE	**12.9**
AQUACULTURE (PERMITTED)	12.9
CONSTRUCTION	**187.8**
CONSTRUCTION	4.96
LAND DEVELOPMENT	3.19
Road/Bridge/Infrastructure Construction	54.1
Site Clearance (New Development or Infill)	125.55
HABITAT ALTERATIONS (NOT DIRECTLY RELATED TO HYDROMODIFICATION)	**852.4**
Habitat Modification	199.52
Loss of Riparian Habitat	638.39
REMOVAL OF RIPARIAN VEGETATION	14.49
HYDROMODIFICATION	**1675.83**
Baseflow Depletion	66.32
Channelization	241.29
DREDGING - AGRICULTURE	87
Dam or Impoundment	84.74
Dredging for Navigation Channels	10.01
Flow Alterations from Water Diversions	596.87
STREAMBANK MODIFICATION/DESTABILIZATION - AGRICULTURE	16.83
Streambank Modifications/destabilization	572.77
INDUSTRIAL	**57.49**
Mill Tailings	16.7
Petroleum/Natural Gas Activities (Permitted)	34.99
RCRA Hazardour Waste Sites	5.8
MUNICIPAL DISCHARGES/SEWAGE	**1080.83**
Municipal Point Source Discharges	378.14
On-site Treatment Systems (Septic)	702.69

NATURAL/WILDLIFE	**2104.2**
Drought-related Impacts	731.46
Natural Sources	327.18
Waterfowl	437.21
Wildlife Other than Waterfowl	608.35
OTHER	**309.53**
Low Water Crossing	277.73
Rural (Residential Areas)	31.8
RECREATION AND TOURISM (NON-BOATING)	**502.05**
Off-road Vehicles	44.81
Recreational Pollution Sources	457.24
RESOURCE EXTRACTION	**105.41**
ACID MINE DRAINAGE	8.33
Abandoned Mine Lands	19.99
MINING	10.85
Mine Tailings	15.12
Mining Reclamation	5.8
Petroleum/Natural Gas Activities	34.99
Surface Mining	10.33
SILVICULTURE (FORESTRY)	**558.99**
Forest Roads (Road Construction and Use)	88.83
SILVICULTURE ACTIVITIES	86.65
Silviculture Fire Suppression	97.4
Silviculture Harvesting	113.78
Watershed Runoff following Forest Fire	172.33
SPILLS/DUMPING	**156.36**
ILLEGAL DUMPS OR OTHER INAPPROPRIATE WASTE DISPOSAL	16.83
Inappropriate Waste Disposal	139.53
UNKNOWN	**4753.36**
Source Unknown*	4753.36
URBAN-RELATED RUNOFF/STORMWATER	**1490.53**
Impervious Surface/Parking Lot Runoff	417.68
MS4 Discharges	52.46
Municipal (High Density Area)	68.86
Road/Bridge Runoff	680.95
Urban Runoff/Storm Sewers	39.36
Wastes from Pets	231.22

NOTES:

This information is generated using SQUID. In most instances, more than a single cause or source contributed to water quality impairment. Where waterbodies have more than one cause or source of impairment, the appropriate waterbody size 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. Based on SWQB’s 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).