

APPENDIX B
PROBABLE SOURCES OF IMPAIRMENT

“Sources” are defined as activities that may contribute pollutants or stressors to a water body (USEPA 1997). The list of “Probable Sources of Impairment” in the [Integrated 303\(d\)/305\(b\) List, Total Maximum Daily Load](#) documents (TMDL’s), and Watershed-Based Plans (WBP’s) is intended to include any and all activities that could be contributing to the identified cause of impairment. Data on Probable Sources is routinely gathered by Monitoring and Assessment Section staff and Watershed Protection Section staff during water quality surveys and watershed restoration projects and is housed in the Assessment Database (ADB version 2). ADB was developed by USEPA to help states manage information on surface water impairment and to generate §303(d)/ §305(b) reports and statistics. More specific information on Probable Sources of Impairment is provided in individual watershed planning documents (e.g., TMDL’s, WBP’s, etc) as they are prepared to address individual impairments by assessment unit.

USEPA through guidance documents strongly encourages states to include a list of Probable Sources for each listed impairment. According to the 1998 305(b) report guidance, “..., states must always provide aggregate source category totals...” in the biennial submittal that fulfills CWA section 305(b)(1)(C) through (E) (USEPA 1997). The list of “Probable Sources” is not intended to single out any particular land owner or single land management activity and has therefore been labeled “Probable” and generally includes several sources for each known impairment.

The approach for identifying “Probable Sources of Impairment” was recently modified by SWQB. Any new impairment listing will be assigned a Probable Source of “Source Unknown.” Probable Source Sheets will continue to be filled out during watershed surveys and watershed restoration activities by SWQB staff. Information gathered from the Probable Source Sheets will be used to generate a draft Probable Source list in consequent TMDL planning documents. These draft Probable Source lists will be finalized with watershed group/stakeholder input during the pre-survey public meeting, TMDL public meeting, WBP development, and various public comment periods. The final Probable Source list in the approved TMDL will be used to update the subsequent Integrated List.

Literature Cited:

USEPA. 1997. Guidelines for preparation of the comprehensive state water quality assessments (305(b) reports) and electronic uptakes. [EPA-841-B-97-002A](#). Washington, D.C.

Figure B1. Probable Source Development Process and Public Participation Flowchart

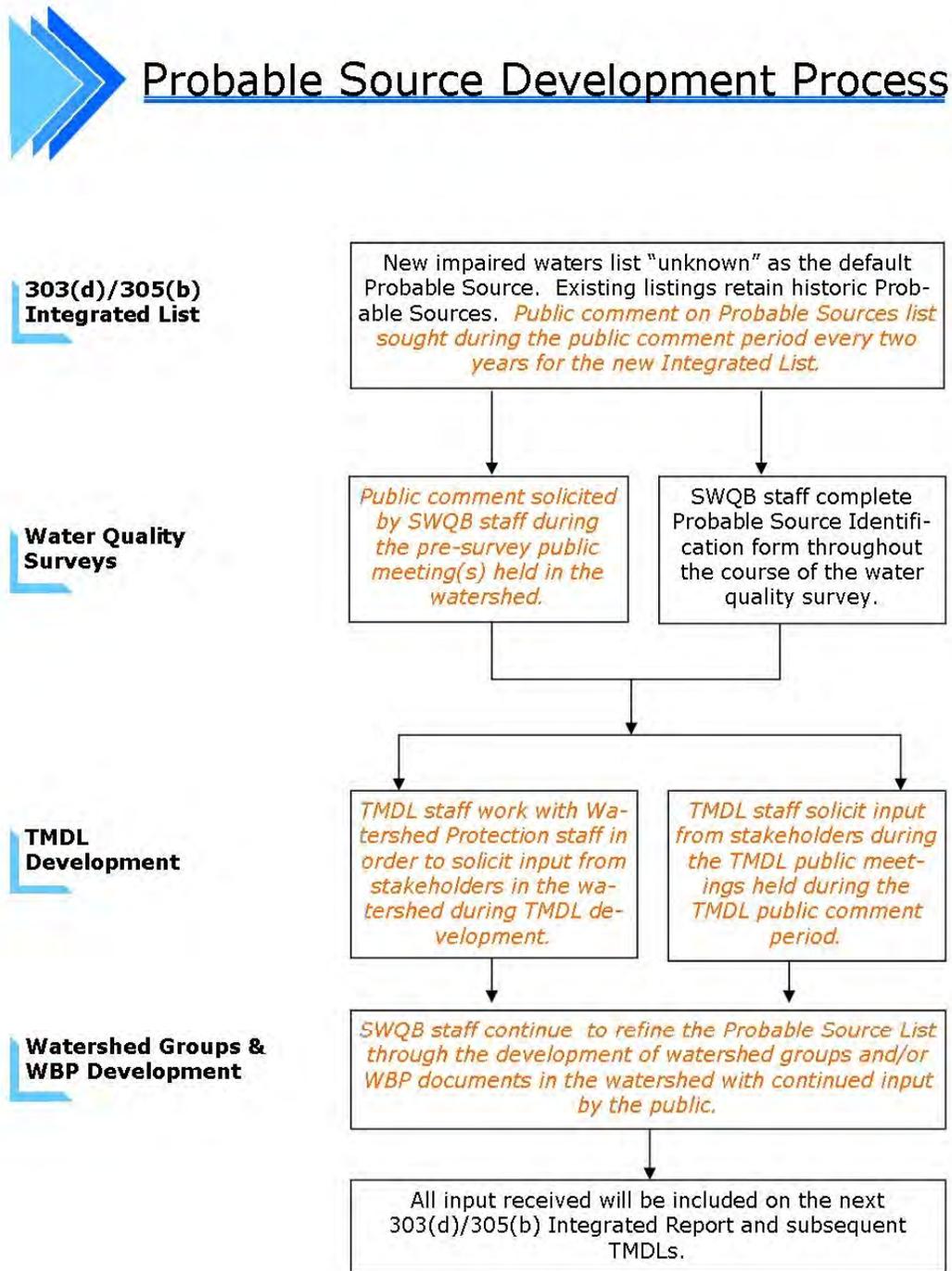


Figure B2. Probable Source Identification Sheet for the Public

Help Us Identify Probable Sources of Impairment

Name:
Phone Number (optional):
Email or Mailing Address (optional):
Date:
Waterbody Name/ Watershed Name/ Location of concern:

From the list below, please check the items you believe are sources of water quality impairment in the watershed or waterbody of concern. In the spaces next to each item you check, please use the following scale to indicate how much of a concern that item is to you by specifying a number between 1 and 3.

(1 - Slight Concern) (2 – Moderate Concern) (3 – High Concern)

✓	ACTIVITY	Scale of Concern		
<input type="checkbox"/>	Feedlots	1	2	3
<input type="checkbox"/>	Livestock Grazing	1	2	3
<input type="checkbox"/>	Agriculture	1	2	3
<input type="checkbox"/>	Flow Alterations (water withdrawal)	1	2	3
<input type="checkbox"/>	Stream/River Modification(s)	1	2	3
<input type="checkbox"/>	Storm Water Runoff	1	2	3
<input type="checkbox"/>	Flooding	1	2	3
<input type="checkbox"/>	Landfill(s)	1	2	3
<input type="checkbox"/>	Industry/Wastewater Treatment Plant	1	2	3
<input type="checkbox"/>	Inappropriate Waste Disposal	1	2	3
<input type="checkbox"/>	Improperly maintained Septic Systems	1	2	3
<input type="checkbox"/>	Other: (please describe)	1	2	3
✓	ACTIVITY	Scale of Concern		
<input type="checkbox"/>	Pavement and Other Impervious Surfaces	1	2	3
<input type="checkbox"/>	Roads/Bridges/Culverts	1	2	3
<input type="checkbox"/>	Habitat Modification(s)	1	2	3
<input type="checkbox"/>	Mining/Resource Extraction	1	2	3
<input type="checkbox"/>	Logging/Forestry Operations	1	2	3
<input type="checkbox"/>	Housing or Land Development	1	2	3
<input type="checkbox"/>	Exotic species	1	2	3
<input type="checkbox"/>	Waterfowl	1	2	3
<input type="checkbox"/>	Wildlife and domesticated animals other than waterfowl	1	2	3
<input type="checkbox"/>	Recreational Use	1	2	3
<input type="checkbox"/>	Natural Disturbances (please describe)	1	2	3
<input type="checkbox"/>	Other: (please describe)	1	2	3
Comments:				

Figure B3. Probable Source Identification Sheet for NMED and Other Agencies

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Ver. 2

Probable Source Field Sheet & Site Condition Class Verification

Station ID:	Station Name/Description:														
Field Crew:	Comments:														
Date:	Watershed protection staff reviewer:										Date of WPS review:				
WQS Segment from 20.6.4 NMAC:					Assessment Unit:										
<p>Score the proximity and certainty of occurrence of the following activities in the watershed upstream of the site. Consult with the appropriate staff at NMED and other agencies to score shaded cells. Fill out after recon during 1st or 2nd site visit, review and revise at the end of the survey, and have it reviewed by Watershed Protection Staff with knowledge of the particular watershed. Maintain completed forms in Survey Binder.</p>															
Activity Checklist															
Agriculture								Silviculture							
Permitted CAFOs	0	1	3	5	Logging Ops – Active Harvesting	0	1	3	5	Logging Ops – Legacy	0	1	3	5	
Crop Production (Cropland or Dry Land)	0	1	3	5	Fire Suppression (Thinning/Chemicals)	0	1	3	5	Other:	0	1	3	5	
Drains	0	1	3	5	Hydromodifications										
Irrigated Crop Production (Irrigation Equip)	0	1	3	5	Channelization	0	1	3	5	Dams/Diversions	0	1	3	5	
Permitted Aquaculture	0	1	3	5	Draining/Filling Wetlands	0	1	3	5	Dredging	0	1	3	5	
Other:	0	1	3	5	Irrigation Return Drains	0	1	3	5	Riprap/Wall/Dike/Jetty Jack -- circle	0	1	3	5	
Rangeland								Miscellaneous							
Livestock Grazing or Feeding Operation	0	1	3	5	Angling Pressure	0	1	3	5	Dumping/Garbage/Trash/Litter	0	1	3	5	
Rangeland Grazing (dispersed)	0	1	3	5	Excavation	0	1	3	5	Exotic Plant Species	0	1	3	5	
Other:	0	1	3	5	Fish Stocking	0	1	3	5	Hiking Trails	0	1	3	5	
Industrial/ Municipal								Habitat Modification							
Industrial Stormwater Discharge (permitted)	0	1	3	5	Campgrounds (Dispersed/Defined – circle)	0	1	3	5	Excavation	0	1	3	5	
Storm water Runoff due to Construction	0	1	3	5	Surface Films/Odors	0	1	3	5	Mass Wasting	0	1	3	5	
Industrial Point Source Discharge	0	1	3	5	Pesticide Application (Algaecide/Insecticide)	0	1	3	5	Restoration	0	1	3	5	
Landfill	0	1	3	5	Waste From Pets (high concentration)	0	1	3	5	Other:	0	1	3	5	
Municipal Point Source Discharge	0	1	3	5	Natural Disturbance or Occurrence										
On-Site Treatment Systems (Septic, etc.)	0	1	3	5	Waterfowl	0	1	3	5	Drought-related Impacts	0	1	3	5	
Pavement/ Impervious Surfaces	0	1	3	5	Watershed Runoff Following Forest Fire	0	1	3	5	Recent Bankfull or Overbank Flows	0	1	3	5	
Inappropriate Waste Disposal	0	1	3	5	Wildlife other than Waterfowl	0	1	3	5	Other Natural Sources:	0	1	3	5	
RCRA/Superfund Site	0	1	3	5	Legend – Proximity Score										
Residences/Buildings	0	1	3	5	Activity believed to be Absent	0	Activity observed or known to be present within 1 km of the channel	3							
Site Clearance (Land Development)	0	1	3	5	Activity believed to be present in Watershed	1	Activity observed or known to be present in the riparian zone	5							
Urban Runoff/Storm Sewers	0	1	3	5											
Power Plants	0	1	3	5											
Other:	0	1	3	5											
Resource Extraction								Habitat Modification							
Abandoned Mines (Inactive)/Tailings	0	1	3	5	Exotics Removal	0	1	3	5	Incised	0	1	3	5	
Acid Mine Drainage	0	1	3	5	Mass Wasting	0	1	3	5	Restoration	0	1	3	5	
Active Mines (Placer/Potash/Other -- circle)	0	1	3	5	Other:	0	1	3	5						
Oil/Gas Activities (Permitted/Legacy – circle)	0	1	3	5	Natural Disturbance or Occurrence										
Reclamation of Inactive Mines	0	1	3	5	Waterfowl	0	1	3	5	Drought-related Impacts	0	1	3	5	
Other:	0	1	3	5	Watershed Runoff Following Forest Fire	0	1	3	5	Recent Bankfull or Overbank Flows	0	1	3	5	
Roads								Legend – Proximity Score							
Bridges/Culverts/RR Crossings	0	1	3	5	Activity believed to be Absent	0	Activity observed or known to be present within 1 km of the channel	3							
Low Water Crossing	0	1	3	5	Activity believed to be present in Watershed	1	Activity observed or known to be present in the riparian zone	5							
Paved Roads	0	1	3	5											
Gravel or Dirt Roads	0	1	3	5											
Other:	0	1	3	5											

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