

TABLE 3-1

CHECKLIST OF REQUIREMENTS TO COMPLY WITH THE GROUND WATER QUALITY STANDARDS

HYDROGEOLOGIC STUDY	MONITORING PLAN
<b>Minimum Requirements:</b>	Even if there is a limited potential to contaminate, some level of monitoring may be
Ambient ground water quality:	necessary to assure that a discharge is not occurring which is impacting the environment
1. Eight ground water quality samples (4.2.1.1.3) 2. Constituents of concern (5.2.1)	Media to be sampled: (5.1)
Ground water flow direction: (4.2.1.2)	1. Ground water
1. Depth to water	4. Soil
2. Potentiometric map	2. Surface water
Location and construction of existing wells:	3. Vadose zone (5.5)
within a 1/4 mile radius of the discharge (4.2.1.3)	6. Treatment process
1. Well use	Constituents to be analyzed: (5.2)
4. Static water level	1. Volatile organic compounds
2. Well construction	2. Inorganic constituents
5. Screened Interval	Ions (5.2.2)
3. Depth	Metals (5.2.3)
6. Geologic well logs	3. Microbial pathogens (5.2.4)
Waste characterization:	4. Field parameters (5.2.3)
1. Constituents of concern (5.2.1)	Location of monitor wells: (5.3)
2. Quality (mean and range)	1. Upgradient
3. Quantity (rate, frequency and duration)	2. Downgradient
AKART: (4.2.1.5)	3. Vertical placement
Beneficial uses: (4.2.1.6)	Well construction (5.4)
<b>Additional Requirements:</b>	1. Well type
The level of effort in considering each of the following elements depends upon the level of complexity at each site.	Existing (5.4.1.2)
The level of expectation should be discussed with Ecology.	Monitor (5.4.1.1)
These elements should be considered if any of the following conditions exist:	2. Well construction
1. Compliance is dependent upon site specific treatment,	Drilling method (5.4.2)
2. A catastrophic failure could impair a beneficial use,	Screened interval (5.4.3)
3. The quantity of wastewater discharged is greater than 15,000 gallons per day, or	Casing materials (5.4.4)
4. If Ecology determines it is necessary.	Monitor well development (5.4.5)
Geology: (4.2.2.1)	3. Point of compliance / Alternate point of compliance: (5.6/5.7)
1. Well logs	4. Monitoring frequency: (5.8)
4. Subsurface features	5. Sampling and analytical protocol: (5.9)
2. Geologic maps	Well purging (5.9.1)
5. Geomorphology	Sample collection (5.9.2)
3. Cross sections	Equipment
6. Lithology	Material
Hydrogeology: (4.2.2.2)	Decontamination procedures
1. Ground water velocity	QA/QC (quality assurance/quality control) (5.9.4)
5. Porosity	Field blanks
2. Transmissivity	Equipment blanks
6. Dispersivity	Duplicates
3. Storage coefficient	Lab spikes
7. Precipitation	Background water samples
4. Hydraulic conductivity	
8. Evapotranspiration	
Area impacted: (4.2.2.3)	
Location and construction of existing wells:	
This is similar to the requirement listed under minimum requirements except	
the wells should be identified for a 1 mile radius from the discharge (4.2.24)	
Surface water: (4.2.2.5)	
1. Surface water bodies	
2. Marine waters	
3. Wetlands	

Source: Washington Department of Ecology, 1996. Implementation Guidance for Ground Water Quality Standards.