

CIRCULAR MFSA-2

APPLICATION REQUIREMENTS FOR LINEAR FACILITIES

**Alternative Siting Study
Baseline Study
Impact Assessment**

2023 Edition



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SECTION 1 PURPOSE AND APPLICABILITY

The purpose of this circular is to describe the application requirements pertaining to the alternative siting study, baseline study, and impact assessment of linear facilities. This circular applies to applications submitted after {the effective date of this circular}.

SECTION 2 DEFINITIONS

Unless the context requires, and clearly states otherwise, terms in this circular are defined as follows.

- (1) “Act” means the Montana Major Facility Siting Act, Title 75, chapter 20, MCA.
- (2) “Active Fault” means a fault along which there is recurrent movement, which is usually indicated by small, periodic displacements or seismic activity.
- (3) “Applicant” means a person filing an application with the department and any other entities that will jointly own, operate, market, and/or use the output or services of the facility applied for in the application.
- (4) “Application” means an application to the department for a certificate of compliance under 75-20-211, MCA.
- (5) “Associated facilities” is defined in 75-20-104(3), MCA.
- (6) “Baseline data” means detailed information that describe the existing natural, physical, cultural, social, and economic environment.
- (7) “Baseline study” means a detailed analysis of a proposed site for a generation or conversion facility and impact zones of alternative facility locations and impact zones for a linear facility for purposes of impact assessment and comparison and selection of a preferred facility location.
- (8) “Board” means the board of environmental review.
- (9) “Certificate” means the certificate of compliance issued by the department that is required prior to construction or operation of a facility.
- (10) “Decommission” means to permanently remove a facility from service, including any physical changes such as dismantling the facility at the end of its useful life and reclaiming the site or location.
- (11) “Department” means the Montana department of environmental quality.
- (12) “Facility” is defined in 75-20-104, MCA.

(13) “Facility location” means a location for a linear facility accurately depicted to within 250 feet unless otherwise specified by the department by a line one millimeter or less in width drawn on a 1:24,000 map, and which may or may not be surveyed. Three types of “facility location” referred to in this circular are:

(a) “Alternative facility location” means one of the alternative locations potentially suitable for construction of a linear facility that has been depicted in an electronic format acceptable to the department on the map described in Section 3.3;

(b) “Approved facility location” means the precise location for a linear facility that is approved by the department and accurately depicted in an electronic format to within 250 feet, unless otherwise specified by the department, in the certificate on the map described in Section 3.3;

(c) “Proposed facility location” means the applicant's desired location for a linear facility as depicted in an electronic format acceptable to the department on the base described in Section 3.3.

(14) “Impact zone” means the study area in which data are collected during the baseline study in order to make a determination of the impacts from construction, operation, maintenance or decommissioning of a proposed facility or associated facility at the preferred and reasonable alternative locations.

(15) “Linear facility” means an electric transmission line or a gas or liquid pipeline covered by the Act.

(16) “Market area” means a geographic area where a significant portion of the output of a facility proposed by a competitive utility or non-utility would be sold.

(17) “Metadata” for mapped material means information documenting the source, scale, date, projection, datum, resolution, and use limitations.

(18) “Mitigation” means avoiding an impact by not taking a certain action or parts of an action, or minimizing impacts by limiting the degree or magnitude of an action and its implementation, or rectifying an impact by repairing, rehabilitating, or restoring the affected environment, or reducing or eliminating an impact over time by preservation and maintenance operations during the life of an action, or compensating for an impact by replacing or providing substitute resources or environments.

(19) “Overview Survey” means the collection and mapping of environmental information within a study area for the purpose of selecting alternative facility locations.

(20) “Paralleling” means locating a proposed linear facility directly adjacent to or overlapping the right-of-way of an existing linear utility, transportation or communication facility. Paralleling requires that all facilities continue to meet all safety and building code protections.

(21) “Road” means a way or course that is constructed or formed by substantial re-contouring of land, clearing, or other action designed to be permanent or intended to permit passage by most four-wheeled vehicles for a significant period of time.

(22) “Significant adverse impact” means a detrimental change in the social, economic, cultural, physical or natural environment as a result of the construction, operation, maintenance, or decommissioning of a facility, as determined by the department on the basis of the impact's severity, duration, geographic extent, or frequency of occurrence or the uniqueness of the affected environmental value or its importance to the state and/or to society.

(23) “Study area” means a geographical area of variable size and width that is potentially suitable for siting a linear facility.

SECTION 3.0 GENERAL REQUIREMENTS FOR THE ALTERNATIVE SITING STUDY AND BASELINE STUDY

Introductory Note:

This circular provides a streamlined siting process that relatively quickly narrows the range of alternatives. For particularly complex projects where constrained areas result in difficult siting choices or with elevated levels of public concern, applicants are advised to work with the department maintaining an open line of communication with the department and submit sufficient information to address public concerns and support a department decision.

The alternative siting study is required in order to identify a proposed facility location for a linear facility that will accommodate the facility for which a need is established and for which there are no better alternatives given the environmental and economic costs and benefits. The proposed facility location should result in minimum adverse environmental impacts considering available technology and the nature and economics of alternatives. Adverse impacts are minimized by:

- 1) avoiding wilderness areas and primitive areas;
- 2) identifying a location that achieves the best balance of preferred location criteria listed in Section 3.1; and

3) avoiding or mitigating significant adverse impacts that would occur as a result of constructing the facility.

Areas identified in Sections 3.2, 3.4 and 3.7 should not be crossed by a facility unless the applicant can demonstrate that no significant adverse impacts would result, or that mitigation of significant adverse impacts is possible, or unless siting the facility in or through these areas would result in less cumulative adverse environmental impact and economic costs, including the costs of mitigation, than siting the facility in an alternative location. The alternative siting study is conducted within a study area that contains all reasonable end points for the facility. A tiered screening process to identify a minimum of three alternative facility locations accomplishes the purposes of the alternative siting study. Cost, engineering considerations, and adverse environmental impacts are to be considered at each level of screening.

The first step relies on existing environmental data that the applicant is required to collect in order to determine the locations of wilderness areas and primitive areas and other conditions where substantial impacts or increased costs may result. Based on this information, the applicant is required to identify at least three alternative locations for detailed study and further refinement. The applicant identifies these alternative locations by eliminating, wherever possible, areas where substantial impacts or increased costs may occur, and by choosing alternative locations that are feasible and desirable based on preferred site criteria, cost, and engineering considerations.

The baseline study is concerned only with alternative locations, one of which is the preferred location for a facility. Baseline data, a detailed assessment of the adverse impacts the facility would have on the environment if it were constructed along each of the alternative locations, and identification of plans or measures to mitigate adverse environmental impacts are required for the baseline study. Baseline data are collected within “impact zones” that occur on either side of alternative locations. The size of impact zones varies with the type of resource being studied. Impact zones are specified in Section 3.7. A comparison of alternative facility locations based on this information, cost and engineering considerations (Section 3.9), and an explanation of the reasons for selection of the preferred facility location (Section 3.10), completes the siting study.

(1) Unless otherwise approved by the department pursuant to ARM 17.20.804(2), an application for a linear facility must contain an alternative siting study and baseline environmental data as specified in this circular.

(2) The alternative siting study for an electric transmission line or a pipeline must include:

- (a) delineation of the study area (see Section 3.2);
- (b) an overview survey of the study area (see Sections 3.3 and 3.4);
- (c) selection of alternative locations for the proposed facility (see Section 3.5);
- (d) a baseline study of alternative locations for the proposed facility, including baseline data collection and impact assessment (see Sections 3.6 through 3.8);

(e) a comparison of alternative locations for the proposed facility (see Section 3.9);
and

- (f) selection of the preferred location for the proposed facility (see Section 3.10).

(3) The alternative siting study must include any alternative locations for the facility which have alternative end points or combinations of end points that would meet the need the proposed facility is intended to address, and would have a levelized annual cost no more than 35% higher (25% higher for transmission lines 230 kV or greater voltage and 30 miles or longer) than the levelized annual cost of the facility or would have significant environmental advantages over the facility, with the end points proposed by the applicant.

(4) An application must contain a summary of the results of consultation with government agencies to identify their concerns over the proposed facility's possible locations or effects on the environment, including any mitigation measures suggested by those agencies, and the way the applicant considered these concerns in identifying preferred and alternative locations for the facility.

(5) An application may contain any valid and useful existing studies, reports, or data prepared on the linear facility and may be submitted by the applicant towards fulfilling the requirements of this circular, but shall be subject to supplementation, and shall be used by the department only to the extent it considers them applicable.

SECTION 3.1 PREFERRED LOCATION CRITERIA

Preferred locations conform to the criteria listed in 75-20-301(1)(c), MCA, and achieve the best balance among the following location criteria:

- (1) for electric transmission lines:
 - (a) where there is the greatest potential for general local acceptance of the facility;
 - (b) where they utilize or parallel existing utility and/or transportation corridors;
 - (c) to allow for selection of a location in nonresidential areas;
 - (d) on rangeland rather than cropland and on non-irrigated or flood irrigated land rather than mechanically irrigated land;
 - (e) in logged areas rather than undisturbed forest, in timbered areas;
 - (f) in geologically stable areas with non-erosive soils in flat or gently rolling terrain;
 - (g) in roaded areas where existing roads can be used for access to the facility during construction and maintenance;
 - (h) so that structures need not be located on a floodplain;
 - (i) where the facility will create the least visual impact;
 - (j) a safe distance from residences and other areas of human concentration;
 - (k) in accordance with applicable local, state, or federal management plans when public lands are crossed; and
- (2) for pipelines:
 - (a) conform to the criteria listed in (1)(a), (b), (e) through (g), (i) through (k); and
 - (b) cross lands which can be returned to their original condition through re-contouring, conservation of topsoil and reclamation.

SECTION 3.2 DELINEATION OF THE STUDY AREA

(1) An application must identify the study area or areas that include the following, considering the electrical loads to be served and electrical problems or opportunities to be addressed by the facility, or the market area for the product that would be transported by the facility:

- (a) all reasonable end points for the facility within or outside Montana;

(b) for facilities with end points outside Montana, all reasonable points for exiting Montana;

(c) a geographical area or areas between the end points or exit points of sufficient width to include all reasonable locations for the proposed facility;

(d) transmission line avoidance of the following areas, unless it is shown, that no significant impacts are likely to result; that mitigation of significant adverse impacts is possible; or that siting the facility in the following areas would result in less cumulative adverse environmental impact and economic costs, including the costs of reasonable mitigating measures, than siting the facility in an alternative location:

(i) national wilderness areas;

(ii) national primitive areas;

(iii) national wildlife refuges and ranges;

(iv) state wildlife management areas and wildlife habitat protection areas;

(v) national parks and monuments;

(vi) state parks;

(vii) national recreation areas;

(viii) corridors of rivers in the national wild and scenic rivers system and rivers eligible for inclusion in the system;

(ix) roadless areas of 5,000 acres or greater in size, managed by federal or state agencies to retain their roadless character;

(x) rugged topography defined as areas with slopes greater than 30 percent; and

(xi) specially managed buffer areas surrounding national wilderness areas and national primitive areas;

(e) for pipelines, avoidance of the areas referenced in (d) and active faults unless it is demonstrated that no adverse significant impacts are likely to result; or that mitigation of significant adverse impacts is possible; or that siting the facility through those areas would result in less cumulative adverse environmental impact and economic costs, including the costs of reasonable mitigating measures, than siting the facility in an alternative location; and

(f) for a proposed facility that crosses an area referenced in (d) (i) or (ii), a demonstration submitted prior to issuance of a certificate, that the legislative or administrative unit

of government with direct authority over the area has given the applicant permission to locate the facility there.

(2) An application must identify the factors used to determine the boundaries of the study area considering:

- (a) avoidance of the areas listed in (1) (d) and (e);
- (b) the preferred location criteria listed in Section 3.1;
- (c) cost;
- (d) reliability and engineering concerns;
- (e) other factors important to the applicant; and
- (f) references to relevant information provided pursuant to ARM 17.20.920 through 17.20.924, 17.20.1304, 17.20.1305, and 17.20.1311

(3) An application must contain a base map and an electronic equivalent approved by the department in advance of the study area delineated on USGS topographic maps at a scale of 1:250,000 or 1:100,000. Each electronic submittal shall be accompanied by metadata describing the submittal.

(4) An application must contain an explanation of the methods used to determine the boundaries of the study area, an explanation of how the considerations listed in (2) were incorporated, and a discussion of the rationale for selecting the study area.

SECTION 3.3 GENERAL REQUIREMENTS FOR OVERVIEW SURVEYS

(1) Unless otherwise approved in advance in writing by the department, an application must contain an overview survey of the study area identified in Section 3.2 to identify alternative locations suitable for siting the facility.

(2) An applicant must conduct one or more public meetings that are accessible to the residents of the study area to identify resources potentially affected by the proposed facility, suggested locations for the proposed facility, alternatives to the proposed facility, and mitigation measures for the proposed facility. At the meeting an applicant shall present or provide information on the need for the proposed facility. The applicant shall notify the department prior to conducting these public meetings. Information gathered by the applicant from these meetings may be used by the department to assist in determining the scope of an environmental assessment (EA) or environmental impact statement (EIS) pursuant to ARM 17.4.609 or 17.4.615.

(3) An application must contain base maps of the study area and alternative locations for the proposed facility. The base maps shall provide coverage at a scale of 1:100,000 or 1:24,000 of the geographic area showing the study area. The applicant shall provide the department an electronic submittal acceptable to the department. Each electronic submittal shall be accompanied by metadata describing the submittal. USGS topographic maps, or electronic equivalent acceptable to the department, must be used to create the maps.

(4) For electric transmission lines, the areas specified in Sections 3.2(1)(d) and Section 3.4(1) must be avoided when selecting alternative locations for a proposed facility unless the applicant demonstrates that no significant impacts are likely to result; that mitigation of significant adverse impacts is possible; or that siting the facility through these areas would result in less cumulative adverse environmental impact and economic costs, including the costs of reasonable mitigating measures, than siting the facility in an alternative location.

(5) For pipelines, the areas specified in Section 3.2(1)(e) and Section 3.4(2) must be avoided when selecting alternative locations for a proposed facility unless the applicant demonstrates that no significant impacts are likely to result; that mitigation of significant adverse impacts is possible; or that siting the facility through those areas would result in less cumulative adverse environmental impact and economic costs, including the costs of reasonable mitigating measures, than siting the facility in an alternative location.

(6) Any areas listed in Section 3.2(1)(d) or (e) or Section 3.4 that may be crossed by a facility shall be considered in the selection of alternative locations and in the assessment of impacts required by the baseline study if any of these areas is within the impact zone of an alternative location for the proposed facility.

(7) An application must identify the factors used to determine the alternative locations for the proposed facility including: avoidance of the areas specified in (4) and (5); the preferred location criteria listed in Section 3.1; environmental information specified in Section 3.4; cost, reliability and engineering concerns; other factors important to the applicant; and relevant information provided for Section 3.2(2).

(8) An application must delineate the proposed and alternative locations for a linear facility on base maps described in (3). Unless otherwise approved by the department pursuant to ARM 17.20.804(2), alternative locations shall be accurate to within 40 feet. Environmental information specified in Section 3.4 shall be delineated in an electronic map format acceptable to the

department that clearly portrays the required information. Each electronic submittal shall be accompanied by metadata describing the submittal.

(9) An application must contain an explanation of the methods used to determine alternative locations for the proposed facility, an explanation of how the considerations listed in (2) were incorporated, and a discussion of the rationale for selecting the alternative locations for further study.

SECTION 3.4 ENVIRONMENTAL INFORMATION FOR OVERVIEW SURVEY

(1) For electric transmission lines, an application must contain an electronic map, in a format acceptable to the department, of the study area required by Section 3.3(3) that delineates the following environmental information:

- (a) areas specified in Section 3.2(1) (d) that are located within the study area;
- (b) state or federal waterfowl production areas;
- (c) national natural landmarks, natural areas, research natural areas, areas of critical environmental concern, special interest areas, research botanical areas, outstanding natural areas designated by the national park service, the USDA forest service, the bureau of land management, or the state of Montana;
- (d) designated critical habitat for state or federally listed threatened or endangered species;
- (e) habitats occupied at least seasonally by resident state or federally listed threatened and endangered species;
- (f) national historic landmarks, and national register historic districts and sites;
- (g) national register historic districts and sites nominated to or designated by SHPO (state historic preservation office);
- (h) municipal watersheds;
- (i) streams and rivers listed in Montana department of fish, wildlife and parks river database as being class I or II streams or rivers;
- (j) streams listed by the department pursuant to 75-5-702, MCA, that are not attaining designated beneficial uses of water;
- (k) highly erodible soils and areas with severe reclamation constraints, defined as soils developed on Cretaceous shales, intrusives and certain lacustrine deposits;

- (l) areas where the presence of the facility would be incompatible with published visual management plans or regulations designed to protect viewsheds adopted by federal, state, or local governments;
- (m) the winter distribution of elk, deer, moose, pronghorn, mountain goat and bighorn sheep and areas where they concentrate during severe winters, as identified by the Montana department of fish, wildlife and parks, the bureau of land management, and the USDA forest service;
- (n) major elk summer security areas which are any forested areas greater than 1/2 mile in minimum radius, more than 1/2 mile from an existing road, and identified through consultation with the Montana department of fish, wildlife and parks, the bureau of land management, and the USDA forest service as elk summer range;
- (o) habitats occupied at least seasonally by mountain sheep and mountain goats as identified through consultation with the Montana department of fish, wildlife and parks;
- (p) sage grouse and sharp-tailed grouse breeding areas, the winter distribution of sage grouse and sharp-tailed grouse, and areas where they concentrate during severe winters as designated by the Montana department of fish, wildlife and parks;
- (q) areas with high waterfowl population densities including prime waterfowl habitat that have been identified through consultation with the Montana department of fish, wildlife and parks and other areas identified by the Montana department of fish, wildlife and parks or US fish and wildlife service as waterfowl concentration areas or low-level feeding flight paths;
- (r) any undeveloped land or water areas that contain known natural features of unusual scientific, educational or recreational significance;
- (s) areas with geologic units or formations that show a high probability of including significant paleontological resources;
- (t) sites that have or may have religious or heritage significance and value to Indians;
- (u) standing water bodies, including any lake, wetland, marsh or reservoir; and intermittent water bodies and internally drained basins that reach a surface area of 20 acres or more at least one year out of ten;
- (v) surface supplies of potable water; and
- (w) for substations, switching stations, and/or terminus points, active faults

(2) For pipelines, an application must contain an electronic map, in a format acceptable to the department, of the study area required by Section 3.3(3) that delineates the environmental information specified in (1) and:

(a) areas with slopes greater than 15%; and

(b) any liquid pipeline crossing of a river or stream that is located within 15 miles upstream of a stream or stream reach identified as class I by the Montana department of fish, wildlife and parks in the Montana rivers database or a diversion for a municipal water supply.

(3) An application must contain an electronic map, in a format acceptable to the department, depicting the location of land use and land cover categories. Unless otherwise approved by the department pursuant to 17.20.804(2), linear features required by (d), (e) and (f) shall be accurately mapped to within 40 feet. The applicant may combine information on a single electronic map provided that mapped categories are clearly distinguishable. Land use and land cover categories to be presented include:

(a) cities, towns and unincorporated communities, and residential clusters of 5 or more dwelling units per 20 acres, based on a circle of approximately 1000 feet in diameter;

(b) the developed residential, industrial and commercial areas adjoining cities, towns, and unincorporated communities;

(c) designated residential growth areas;

(d) existing federal and state highways, and designated and existing county roads;

(i) highways and roads designated as scenic routes or scenic byways by a land management agency must be differentiated from non-designated highways and roads;

(e) railroads and railroad right-of-ways;

(f) electric transmission lines of 50 kV or greater voltage design;

(g) non-timbered grassland or rangeland;

(h) forested lands;

(i) communication facilities, including television and radio towers, microwave facilities, cellular phone towers, and law enforcement and emergency network facilities;

(j) military installations, including, but not limited to, military bases, command centers, missile silos, and radar towers;

(k) land areas covered by conservation easements where the presence of the facility would be incompatible with a management plan established by a state or federal agency;

(l) public and private airports and airfields, and any controlled airspace associated with them, and other air traffic hazard areas identified by the Montana aeronautics division and the federal aviation administration;

(m) national trails;

(n) cropland differentiated by mechanically irrigated land, other irrigated land, and dry cropland;

(o) prime or unique farmland and orchards; and

(p) mines permitted under Title 82, Chapter 4, MCA (including but not limited to the Metal Mine Reclamation Act, the Montana Strip and Underground Mine Reclamation Act, and the Opencut Mining Act).

(4) An application must contain an electronic map, in a format acceptable to the department, showing the following land ownership categories:

(a) public land, by federal and state management agency; and

(b) tribal and Indian reservation land.

(5) An application must contain an electronic map, in a format acceptable to the department, depicting the following slope categories, at a minimum map resolution of 2 acres and contour intervals of 80 feet or less, unless different categories are approved in writing by the department:

(a) less than 15%;

(b) 15 to 30%; and

(c) greater than 30%.

(6) An application must contain an estimate of the population in each population center identified for (3)(a).

(7) An application must contain a narrative description of existing social characteristics and characteristics of the local economy of the communities within the study area. Projected future social and economic conditions should the facility not be built must also be discussed. The following information is required in the description for facilities of 230 kV or greater voltage. For facilities of less than 230 kV, a cursory discussion of information required by (a), (b) and (g) is sufficient:

(a) the relationship of current land uses to economic and social activities in the area;

(b) existing federal, state and local government land use plans and other local legal restrictions affecting land uses;

(c) population and demographic characteristics;

(d) social structures, values and lifestyles that may be affected by the construction and operation of the facility and identification of any sub-groups that may be differentially affected by the project;

(e) the local economy, income characteristics, labor force participation characteristics, the availability of skilled and semi-skilled labor, prevailing wage levels, and employment and unemployment rates;

(f) the availability, adequacy, capacity and cost of public services, including roads, education, health, social, public safety, and sanitary services;

(g) fiscal characteristics of local government and school districts, including descriptions of revenue and expenditures; and

(h) the availability, adequacy, and capacity of housing and private sector health services.

(8) An application must characterize the nature and magnitude of public concerns about the facility based on contacts with representative groups of persons residing in the study area, and/or comments received at any scoping and other public meetings the applicant holds, and comments from local service providers and public officials. The application must also identify alternatives to and mitigation measures for the proposed facility suggested by the public and must identify resources the public feels would be affected by the facility.

(9) An application must contain an overview of the landscape aesthetics of the study area, in a format acceptable to the department, including:

(a) a description of the landscape of the study area, including its physiographic provinces, landscape character, scenic integrity, cultural influences, and scenic attractiveness;

(b) maps developed by federal or state land managers or local or county officials that inventory scenic attractiveness, distance zones and concern levels, scenic classes, and visual absorption capability for all or a portion of the study area, or other comparable landscape inventory maps;

(c) an electronic map of land areas categorized according to visual quality of the study area that supplements existing maps that inventory visual quality, with mapping requirements determined through consultation with the department; and

(d) an electronic map of land areas categorized according to visual compatibility of the study area with the facility, with mapping requirements determined through consultation with the department. The electronic map must supplement existing maps that inventory visual contrast or visual absorption.

(10) An application must contain an overview of the history and prehistory of the study area, including the following:

(a) state and federal agency files search results to identify the types of potentially significant historical, prehistorical, architectural, and paleontological resource sites likely to be encountered in the study area and a statement indicating the amount of previous survey work conducted in the study area;

(b) a summary of the nature of the existing historical, prehistorical, or paleontological data base and identification of any inadequacies such as a lack of previous survey work in the study area that could complicate efforts to fully define all significant classes of sites or properties in (a) and to anticipate their occurrence;

(c) identification of sites in (a) likely to be encountered in the study area and an assessment of the potential for sites to yield information of significant value to historic and prehistoric research; and

(d) a map at a scale of 1:125,000, or other appropriate scale determined in consultation with the department, indicating the location and the extent of previous survey work, based on the results of (a) and including a legend showing level of intensity, the reference date of survey, the sponsor, resultant report, the type of resource and the boundaries of each site in (a), national historic landmark, national register historic districts and sites, and national register historic districts and sites nominated to or designated by SHPO (state historic preservation office), when available.

SECTION 3.5 SELECTION OF ALTERNATIVE LOCATIONS

(1) The applicant shall select at least 3 reasonable alternative locations for the proposed facility within the study area for baseline study based on consideration of the following:

- (a) the preferred location criteria listed in Section 3.1 (1) and (2);
- (b) for transmission lines, the environmental information required by Section 3.2(1)(d) and Section 3.4;
- (c) for pipelines, the environmental information required by Section 3.2(1)(e) and Section 3.4;
- (d) cost, reliability, engineering concerns; and
- (e) other factors important to the applicant.

(2) An application must contain an explanation of the methods used to select the alternative facility locations, an explanation of how the considerations listed in (1) were incorporated, and a discussion of the rationale for selecting the alternative facility locations.

SECTION 3.6 GENERAL REQUIREMENTS FOR BASELINE STUDY

(1) An application must contain a baseline study of at least 3 reasonable alternative facility locations and their impact zones to gather baseline data describing the existing environment, to assess impacts associated with the proposed facilities, to identify mitigation strategies, and to select the preferred facility location.

(2) The applicant shall map each alternative facility location, the locations of any intermediate substations, and compressor stations or pump stations (for pipelines). The base map must encompass all impact zones defined in Section 3.7 or Section 3.8. Mapping must be done on a 1:24,000 topographic base map to within 40 feet of their actual location unless otherwise approved by the department pursuant to ARM 17.20.804(2). The line delineating each alternative facility location must identify an environmentally suitable location for the facility. These locations need not be surveyed, but the applicant shall by reasonable effort, such as by air or by ground checking, determine the suitability of the location for a facility. The applicant shall provide this map in an electronic format approved by the department. All electronic submittals must be accompanied by metadata.

(3) An application must contain map, in a format acceptable to the department,

depicting the baseline data required by Section 3.7 and Section 3.8 and depicting the areas listed in Section 3.2 (1)(d) that are within the impact zones associated with each alternative facility location. All electronic submittals must be accompanied by metadata. For pipelines, the areas listed in Section 3.2 (1)(e), that are within the impact zones associated with each alternative facility location must be included. The applicant shall organize the information according to the categories listed in Section 3.8(3)(c) through (e), and (g) through (l).

(4) An application must contain an electronic map, in a format acceptable to the department, that provides complete physical aerial coverage of the alternative facility locations. These photos must have been taken during a season of full foliage no more than 5 years prior to filing the application unless otherwise approved by the department. The electronic map must be submitted in areas prone to mass movement described in (7)(b).

(5) An application must contain, for each alternative facility location, information required by the department and the board to determine compliance with all standards, permit requirements, and implementation plans administered by the department.

(6) An application must contain, where feasible, a tabulation of the amount, type and/or linear miles of any areas mapped in the baseline study in Section 3.7 or Section 3.8, that would be crossed by each alternative facility location or that are located within the impact zones.

(7) An application must identify and discuss mitigation to reduce or eliminate significant adverse impacts of the facility along each alternative facility location where the applicant's assessment indicates that mitigation is necessary or desirable. An application must contain the estimated cost of any proposed mitigation measures. For this purpose, mitigation measures include, but are not limited to:

- (a) alternative construction methods, techniques, and/or equipment;
- (b) reclamation and facility maintenance methods;
- (c) localized alternative location adjustments and alternative structure locations where significant adverse impacts may be avoided or minimized;
- (d) alternative seasonal timing of construction;
- (e) alternative facility or structure designs, height, span length, and alternative facility or structure materials; and
- (f) alternative methods of crossing streams.

SECTION 3.7 BASELINE DATA AND IMPACT ASSESSMENT REQUIREMENTS FOR ELECTRIC TRANSMISSION LINES

(1) An application must contain baseline data and an assessment of the projected short and long-term changes and impacts that would result from construction, operation and maintenance of the facility for each alternative facility location and the impact zones whose boundaries are specified in the following sections, unless different impact zone boundaries are approved in writing by the department. The applicant shall identify general and site-specific mitigation measures to reduce or eliminate these impacts. This information must serve as a basis for evaluating and comparing alternative facility locations as required by Section 3.9, and selecting a preferred location as required by Section 3.10. Baseline data that require mapping must be presented in an electronic map format acceptable to the department.

(2) An application must contain an electronic map, in a format acceptable to the department, depicting the following land use information for an impact zone that includes the area within one mile of each alternative facility location for facilities of 230 kV or less voltage, and includes the area within 2 miles of each alternative facility location for facilities of greater than 230 kV. Environmental information identified in the overview survey specified in Section 3.4(3)(a) through (p) must be included in the baseline impact assessment if located within an impact zone. The land use information includes:

- (a) cities, towns and unincorporated communities, and residential clusters of 5 or more dwelling units per 20 acres, based on a circle of approximately 1000 feet in diameter;
- (b) the developed residential, industrial and commercial areas adjoining cities, towns, and unincorporated communities;
- (c) designated residential growth areas;
- (d) existing federal and state highways, and designated and existing county roads. Highways and roads designated as scenic routes or scenic byways by a land management agency must be differentiated from non-designated highways and roads;
- (e) railroads and railroad rights-of-way;
- (f) electric transmission lines of 50 kV or greater voltage design;
- (g) non-timbered grassland or rangeland;
- (h) forested lands;
- (i) communication facilities, including television and radio towers, microwave

facilities, and law enforcement and emergency network facilities;

(j) military installations, including, but not limited to, military bases, command centers, missile silos, missile training routes, and radar towers;

(k) land areas covered by conservation easements where the presence of the facility would be incompatible with a management plan established by a state or federal agency;

(l) public and private airports and airfields, and any controlled airspace associated with them, and other air traffic hazard areas identified by the Montana aeronautics division and the federal aviation administration;

(m) national trails;

(n) cropland differentiated by mechanically irrigated land, other irrigated land, and dry cropland;

(o) prime or unique farmland and orchards;

(p) mines permitted under Title 82, Chapter 4, MCA, (including but not limited to the Metal Mine Reclamation Act, the Montana Strip and Underground Mine Reclamation Act, and Opencut Mining Act);

(q) platted subdivisions;

(r) major public buildings;

(s) pipelines 8 inches or greater in diameter;

(t) schools and land areas designated by local school boards for future school development;

(u) agricultural experiment stations;

(v) individual residences not included within one of the urban or residential areas listed pursuant to (a) and major farm support buildings within ½ mile of each alternative facility location;

(w) for areas where public concerns have been expressed regarding structure locations next to fence lines, fence lines ¼ mile or greater in length and field boundaries located adjacent to the proposed and alternative facility locations where presence of the proposed line could preclude movement of farming equipment or may produce a charge in a parallel fence.

(3) An application must contain a description of the approximate anticipated construction crew by size, skill, and wage levels, the variation in size as it relates to the construction schedule, and any significant variations in these factors among the alternative

facility locations. If applicable, these data must also be provided for the permanent work force, except that variations in size, if any, must be described as they relate to the operation and maintenance schedule.

(4) An application must contain an assessment of the impacts of the facility on agricultural, residential, commercial, industrial, mining, and public land uses in the impact zone that is within one mile of each alternative facility location, based on the information required by (2) and Section 3.4(3). The assessment of impacts on uses of land must address the compatibility of the facility with existing land use activities, potential changes in or interference with land uses that may occur as a result of the facility, nuisance effects, and potential inhibiting or preclusive effects of the facility on land use improvements or transitions from one type of land use to another. An application must specify any land uses for which there are no significant differences in impacts among the alternative facility locations. An application must contain documentation that agencies with land management responsibilities for potentially affected areas have been consulted concerning impacts and mitigation and a description and evaluation of the mitigation measures suggested by those agencies.

(5) An application must contain an assessment of social impacts, if any, and any important impacts of the facility on the economy and on public and private services for an impact zone that encompasses the area potentially affected by each of the alternative facility locations, based on the information required by Section 3.4(7). An application must specify any economic, social or public or private service characteristics for which there are no significant differences in impacts among the alternative facility locations.

(6) An application must contain an assessment of public attitudes and concerns about the potential impacts of the facility, that is based on representative views of persons residing in the impact zone defined by the applicant pursuant to (5) for each alternative facility location. The assessment must include summaries of public meetings and correspondence. An application must contain summaries of personal interviews and surveys, if they are conducted, and other information the applicant has collected that records the comments and concerns public officials, local residents and other individuals and groups have raised about the facility. The applicant must conduct at least one public meeting that is accessible to residents potentially affected by an alternative facility location. The applicant shall notify federal, state, and local government

agencies potentially affected by facility locations of any public meetings the applicant holds.

The assessment must address the following:

(a) concerns about social, socioeconomic, taxation, and land use changes the facility could cause;

(b) concerns about natural environmental features that may be adversely affected by the facility;

(c) issues relating to the facility that may divide communities, cause individual resentment and frustration, and result in public debate; and

(d) issues relating to the facility of particular concern to landowners and residents in close proximity to any of the alternative facility locations considered.

(7) An application must contain a description of the access road requirements of each alternative facility location and an assessment of the potential impacts of construction of access roads. The description and assessment shall be based on mapping of preliminary centerlines for all access roads that would be required to construct and operate the facility along each alternative facility location. Preliminary road centerlines must be delineated on the electronic map required by (2). The applicant shall obtain this information from existing maps showing roads and other information in existence at the time the application is prepared, but shall also make reasonable effort to confirm the information such as by air or by ground checking. The information and assessment must include:

(a) a discussion of whether access roads would be constructed across any of the areas listed in Section 3.2 (1)(d) and Section 3.4 (1), and identification of any such areas; and

(b) an assessment of impacts to the areas identified in (a). This assessment may be contained in a single section of the application, or may be contained within each of the resource categories in (2) through (6), and (8) through (19), and cross-referenced as appropriate.

(8) An application must contain an assessment of potential impacts of the facility on the earth resources along each alternative facility location and its impact zone. The impact assessment must address erosion, sedimentation, mass movement, and alterations of soil characteristics that could reduce productivity or fertility, including compaction or mixing of soil horizons and measures that could be implemented to mitigate significant impacts. The impact zone must consist of feasible locations for new or substantially upgraded access roads and the area potentially affected by these access roads and each alternative facility location and the

associated access roads. The assessment must include an estimate of the mileage of each alternative location and associated access roads crossing each category of mapped information requested below. The information must be submitted in a format acceptable to the department and requirements are as follows:

(a) an electronic map of wind and water erosion risk and a discussion of the potential impacts considering soil characteristics, slope, predicted amount of disturbance and climatic conditions;

(b) an electronic map and discussion of mass movement potential, including consideration of existing mass movement areas, bedrock geology and soils, slope aspect, vegetation, and ground water conditions; and

(c) an electronic map and discussion of constraints to reclamation and re-vegetation potential. Reclamation includes any site restoration, such as re-contouring, reducing compaction, restoration of segregated top-soils, installation of soil erosion control structures, and weed control and successful establishment of vegetative cover in areas disturbed by facility construction. Constraints to reclamation include any physiographic or geologic feature or physical property of the soils that hinders or prohibits reclamation.

(9) An application must contain the following data relating to the engineering of the facility for each alternative facility location:

(a) a description of any engineering differences among the alternative facility locations as they relate to the feasibility of expanding the transmission capacity of the facility through multiple circuiting or design modifications, or relating to whether the width of the proposed right-of-way is sufficient to accommodate future transmission lines;

(b) a discussion and appropriate drawings of alternative structure types and technologies that would be necessary to address physical constraints, impacts and engineering differences among alternative facility locations, if any;

(c) a discussion of problems posed by poor or seasonally restricted access;

(d) a discussion of compatibility or interference problems the facility may impose on existing transmission, transportation or communication facilities in close proximity to an alternative facility location, if any;

(e) a discussion and supporting documentation of any specific problems or concerns associated with crossings of highways or encroachment on highway rights-of-way as determined

through consultation with the Montana department of transportation; and

(f) an electronic map depicting designated 100-year floodplains that would be crossed by the facility, a description of the potential for damage to the facility from construction in the floodplain, and an assessment of the potential for adverse impacts to the environment resulting from construction, operation and maintenance of the facility in the floodplain; and

(g) an assessment of aeronautical hazards created along each alternative facility location and an assessment of any applicable mitigation measures as determined through consultation with the Montana department of transportation and the federal aviation administration.

(10) An application must contain the following visual resource and viewer information, in a format acceptable to the department, for any recreation area, national register or national register eligible site, residential area, and highway or county road from which the facility would be clearly within an impact zone which is defined as within 5 miles of an alternative facility location for a facility greater than 230 kV, within 3 miles of an alternative facility location for a 230 kV facility or within 2 miles of an alternative facility location for a facility less than 230 kV:

(a) an electronic map of the scenic quality and attractiveness of the impact zone, based on the overview provided in Section 3.4(9) and differentiated by distinctive or outstanding, typical or common, and indistinctive landscapes;

(b) an electronic map categorizing the visual contrast of the proposed facility with the landscape of the impact zone, based on the overview provided in Section 3.4(9) and considering vegetation, slope, land form definition, and other appropriate characteristics of the study area. For pipeline facilities, the degree of re-vegetation potential must also be included;

(c) a tabulation of classes of scenic quality mapped in (a) and categories of visual contrast mapped in (b) for alternative facility locations;

(d) in areas where classes of scenic quality from (a) and categories of visual contrast from (b) differ from existing landscape inventory maps prepared by land managers, the application must explain why;

(e) identification and an electronic map of viewsheds of key observation points, which are a series of representative locations that collectively provide the range of viewer and impact zone characteristics, and a description of criteria used to select these points.

Representative observation points for the areas referenced in (g) that are in close proximity to each other and would afford similar views of the proposed facility may only be selected in consultation with the department;

(f) a description and evaluation of viewer characteristics, including proximity to the facility, orientation, estimated number of viewers, relative sensitivity, and duration of view.

Where a characteristic does not warrant differentiation, an application shall contain an explanation of the reasons;

(g) photographs taken from observation points selected from (e) toward the alternative facility locations sufficient to show the full range of impact zone characteristics. Photographs must be accompanied by or cross-referenced to information provided for (d) and (e). The applicant shall consult with the department regarding inclusion of visual simulations of the facility for selected observation points; and

(h) viewsheds for key observation points described in (e) must be provided for the following areas:

(i) national wilderness areas;

(ii) national primitive areas;

(iii) national parks and monuments;

(iv) state parks;

(v) national recreation areas;

(vi) national wildlife refuges and ranges;

(vii) corridors of rivers in the national wild and scenic rivers system and rivers eligible for inclusion in the system;

(viii) roadless areas of 5,000 acres or greater in size, managed by federal or state agencies to retain their roadless character;

(ix) unique habitats and natural areas designated by the national park service, the USDA forest service, the bureau of land management, or the state of Montana as national natural landmarks, natural areas, research natural areas, areas of critical environmental concern, special interest areas, research botanical areas, outstanding natural areas;

(x) national historic landmarks, and national register historic districts and sites;

(xi) national register historic districts and sites nominated to or designated by SHPO (state historic preservation office);

- (xii) national trails;
- (xiii) areas where the presence of the facility would be incompatible with published visual management plans adopted by federal, state, or local governments;
- (xiv) streams and rivers identified as having a fishery value class of I and II by the Montana department of fish, wildlife and parks;
- (xv) cities, towns and unincorporated communities, and residential clusters of 5 or more dwelling units per 20 acres, based on a circle of approximately 1000 feet in diameter; and
- (xvi) individual residences not included within one of urban or residential clusters defined by (xvi).

(11) An application must contain an assessment of the potential types and levels of visual resource impacts for each alternative facility location, based on integration of information required by (10). The assessment must include a description of the potential alteration, visual quality and compatibility of lands affected by the facility, including a discussion of the methods used to integrate information required by (10). An application must contain documentation that agencies with management responsibility for visual resources have been consulted concerning impacts and mitigation, and a description and evaluation of the mitigation measures suggested by those agencies.

(12) An application must contain a description of existing biological resources, including fisheries, wildlife, and vegetation, and an assessment of the potential impacts to these resources for each of the alternative facility locations, access roads, and other associated facilities. The assessment must include, but shall not be limited to, increased hunting and fishing pressure, habitat alteration, increased access to secure habitat, displacement, shifts in feeding or migration patterns, project-related interference with special use areas, wire-strikes and other mortality, and sedimentation and blockage of streams. An application must contain the following information:

(a) for an impact zone that includes the area within one mile of each alternative facility location, a list of species and habitats of greatest susceptibility to project-related impacts, including fisheries, wildlife and vegetation concerns identified by the applicant and appropriate managing agencies, and an explanation of the rationale and assumptions used to generate the list;

(b) an evaluation of the anticipated impacts to each species or habitat listed in (a), including a description of biological impacts which would occur in the following areas located within the impact zone specified in (a):

- (i) national wildlife refuges and ranges;
- (ii) state wildlife management areas and wildlife habitat protection areas;
- (iii) national recreation areas;
- (vi) corridors of rivers in the national wild and scenic rivers system and rivers eligible for inclusion in the system;
- (vii) roadless areas of 5,000 acres or greater in size, managed by federal or state agencies to retain their roadless character;
- (viii) state or federal waterfowl production areas;
- (ix) unique habitats and natural areas designated by the national park service, the USDA forest service, the bureau of land management, or the state of Montana as national natural landmarks, natural areas, research natural areas, areas of critical environmental concern, special interest areas, research botanical areas, or outstanding natural areas;
- (x) designated critical habitat for state or federally listed threatened or endangered species;
- (xi) streams and rivers listed as having a fisheries value class of I and II by the Montana department of fish, wildlife and parks;
- (xii) agricultural experiment stations;
- (xiii) habitats occupied at least seasonally by resident state or federally listed threatened and endangered species;
- (xiv) specially managed buffer areas surrounding national wilderness areas, and national primitive areas;
- (xv) the winter distribution of elk, deer, moose, pronghorn, mountain goat and bighorn sheep and areas where they concentrate during severe winters, as identified by the Montana department of fish, wildlife and parks, the bureau of land management, and the USDA forest service;
- (xvi) major elk summer security areas which are any forested areas greater than 1/2 mile in minimum radius, more than 1/2 mile from an existing road, and identified by the

Montana department of fish, wildlife and parks, the bureau of land management, and the USDA forest service as elk summer range;

(xvii) habitats occupied at least seasonally by mountain sheep and mountain goat as identified by the Montana department of fish, wildlife and parks;

(xviii) sage grouse and sharp-tailed grouse breeding areas, the winter distribution of sage grouse and sharp-tailed grouse, and areas where they concentrate during severe winters as identified by the Montana department of fish, wildlife and parks;

(xix) areas with high waterfowl population densities including prime waterfowl habitat that have been identified on maps by the Montana department of fish, wildlife and parks and other areas identified by the Montana department of fish, wildlife and parks or US fish and wildlife service as waterfowl concentration areas or low-level feeding flight paths;

(xx) any undeveloped land or water areas that contain known natural features of unusual scientific, educational or recreational significance;

(xxi) mature riparian forests which are riparian stands of cottonwood or mixed cottonwood-conifer forests greater than 300 feet long and 30 feet wide where average canopy height is 50 feet or more and average density of mature trees is greater than 20 stems per acre;

(xxii) nesting colonies, of 5 or more pairs within 40 acres, of white pelicans, great blue herons, double-crested cormorants, gulls, or terns;

(xxiii) habitats occupied at least seasonally and critical to species listed as “species of special interest or concern” by the Montana department of fish, wildlife and parks, or species listed or considered candidates for listing by the US fish and wildlife service as threatened or endangered; and

(xxiv) locations of all known nests of raptorial birds within one-half mile of alternative facility locations.

(c) a general assessment of impacts from increased hunting and fishing pressure if increased access to secure habitat would likely occur in the general vicinity of each alternative facility location because new access roads would be constructed outside the impact zone specified in (a);

(d) a description of the method used to evaluate the impact risk to fisheries, wildlife, and vegetation of the alternative facility locations;

(e) for impacts identified in (b) and (c), a description of mitigating measures that

could be implemented to reduce significant impacts and the cost of such measures; and

(f) documentation that agencies with management responsibility for any affected biological resources have been consulted concerning impacts and mitigation and a description and evaluation of the mitigation measures suggested by these agencies.

(13) Based on the cultural, historical and paleontological resource overview required by Section 3.4(10), an application must contain cultural and paleontological resource data for each alternative facility location and its impact zones. The impact zones include any lands where construction and operation of the facility, including construction of access roads, may directly affect the integrity of cultural, historical, or paleontological resources and any lands with known cultural sites from which the facility would be clearly visible where the values of cultural resources may be significantly affected by the visual presence of the facility. An application must contain the following data:

(a) the results of an on-the-ground survey of cultural resources each alternative facility location, based on the importance of the sites and the degree of potential adverse impact that is expected to occur and based on the data and analysis conducted by the applicant for (10) and (11). The mapping requirements regarding cultural resource sites may be altered by conditions specified by the department pursuant to ARM 17.20.804. The survey results shall be submitted on site survey forms that identify the adverse impacts;

(b) for any cultural resource sites or properties identified or more fully defined by the information required by (a), a discussion, based on consultation with the state historic preservation office, of the potential eligibility of these sites or properties for listing on the national register.

(14) An application must contain an assessment of the potential impacts of the facility on cultural, historical, and paleontological resources for each alternative facility location. The assessment must address the potential for physical destruction during construction or operation of the facility. Cultural, historical and paleontological resource-related information required by (10) and (11) will satisfy the visual impact requirements of this section. The assessment must include the following:

(a) for each of the following potentially affected cultural resource properties or sites and for any properties or sites identified by (13)(b) which may be eligible for listing on the

national register, a discussion of whether the facility would affect the qualities for which these sites or properties were listed or could be listed:

- (i) national historic landmarks, and national register historic districts and sites;
- (ii) national register historic districts and sites nominated to or designated by SHPO (state historic preservation office);
- (b) a discussion of whether the proposed facility would affect the qualities of:
 - (i) areas with geologic units or formations that show a high probability of including significant paleontological resources; and
 - (ii) sites that have, or may have, religious or heritage significance and value to Indians as identified by Section 3.4(1)(t).
- (c) identification of special construction methods and topographic screening that could eliminate or reduce impacts, and a discussion of the likelihood of success of each measure in reducing impact.
- (d) documentation that consultation has occurred with SHPO, affected state and federal agencies, and tribes regarding any affected cultural sites, impacts, and mitigation.

(15) An application must contain baseline data for recreation areas and sites along each alternative facility location and their impact zones. The impact zone for recreation is defined by (10), except all recreation areas and sites within one mile of an alternative location for a facility 230 kV or less voltage, and all recreation areas and sites within 2 miles of an alternative location for a facility greater than 230 kV must be included regardless of whether the facility would be visible from the recreation area or site. An application must contain:

- (a) depicting recreation areas and sites from (c) below that are located within the impact zones;
- (b) a list of the recreation areas and sites located within the impact zones for each alternative facility location cross-referenced to the overlay required by (a) above, a description of each area or site, including any prominent recreational facilities and aesthetic features, a description of how the area or site is used for recreation and, if available, identification of the types of users of the area or site and a use level estimate; and
- (c) information specified in (b) must be provided for the following recreation areas and sites:
 - (i) national wilderness areas;

- (ii) national primitive areas;
 - (iii) national parks and monuments;
 - (iv) national wildlife refuges and ranges;
 - (v) state parks;
 - (vi) corridors of rivers in the national wild and scenic rivers system and eligible for inclusion in the system;
 - (vii) roadless areas of 5,000 acres or greater in size, managed by federal or state agencies to retain their roadless character;
 - (viii) national natural landmarks where recreation is listed as a current site use; natural areas, research natural areas, areas of critical environmental concern, special interest areas, research botanical areas, outstanding natural areas designated by the-national park service, the USDA forest service, the bureau of land management, or the state of Montana;
 - (ix) national trails;
 - (x) streams and rivers listed as class I or II fishery resources by the Montana department of fish, wildlife and parks; and
 - (xi) based on consultation with appropriate local, state, and federal agencies, any other public or private recreational areas or sites receiving extensive public use such as fishing access areas, public and private campgrounds and ski areas, local parks and picnic areas, located within the impact zones.
- (16) An application must contain an assessment of the potential adverse impacts of the facility and access roads on the recreation areas or sites listed pursuant to (15) for each alternative facility location. This assessment of impacts is limited to recreation areas or sites that would be affected by the facility. Information provided in response to (11) concerning aesthetic impacts on recreation areas and sites must be cross-referenced as appropriate. For each recreation area or site that would be affected, an application must contain the following information:
- (a) a description of how access to or within each recreation area or site could be affected by adding new or upgrading existing access roads;
 - (b) a description of how the recreation area or site would be affected including aesthetic impacts of the facility and access roads;

(c) a description of how the facility would be located relative to recreational use of each area or site;

(d) a description of how recreational activities and experiences at each area or site could change as a result of the facility and the potential for use of the area or site to be curtailed or terminated, or for some user groups to be affected more than others;

(e) a description of the relationship of each affected area or site to the local and regional supply of recreation opportunities, including a discussion of whether an affected area or site is unusual or unique in its region by virtue of its providing opportunities unavailable elsewhere; and

(f) documentation that agencies with recreation management responsibility for each affected area or site have been consulted concerning the impacts and mitigation, and a description and evaluation of the mitigation measures suggested by those agencies.

(17) An application must contain an overlay showing, as appropriate and available, the names of perennial streams crossed and their department water quality classifications for each alternative facility location and impact zones as defined by (8).

(18) An application must contain an assessment of potential impacts to water resources, including surface and ground water quality, potential impacts to water users, stream hydrology and stream banks for each alternative facility location and an impact zone as defined by (8). The assessment must also specifically address any impacts that may occur on municipal watersheds, supplies of potable water, and streams listed by the department pursuant to 75-5-702, MCA, that are not attaining designated beneficial uses of water.

(19) An application must contain the following baseline data concerning potential noise, radio and television interference and electrical effects of the facility as applicable for each alternative facility location:

(a) for transmission facilities of 230 kV or greater voltage, a description of present noise conditions at residences located within 1000 feet of each alternative facility location;

(b) for transmission facilities of 230 kV or greater voltage, an overlay showing the locations of railroad routes and associated telephone communication lines within one mile of each alternative facility location where the facility would potentially parallel these installations;

(c) a description of the potential for the facility to induce electrical currents in metal objects on or adjacent to the right-of-way;

(d) an assessment of potential noise impacts of the facility and substations, including an estimate of annual average noise expressed on an A-weighted day-night scale (L_{DN}) at the right-of-way edge for facilities of 230 kV or greater voltage and at the property boundary of all substations located within 500 feet of residences or in areas for which a plat or certificate of survey approved under Title 76, Chapter 3 or 4, MCA, has been filed with the county clerk and recorder. The data on frequency of rain, which is necessary to account for wet weather may be obtained from the nearest weather station that has such data available.

(e) an assessment of the potential impacts of the electrical and magnetic fields generated by the facility;

(f) an assessment of the potential for the facility to cause radio and television interference and interference with any other communication systems; and

(g) a description of mitigation measures if necessary to reduce noise, electric and magnetic fields, induced currents, and interference with communication systems.

SECTION 3.8 BASELINE DATA AND IMPACT ASSESSMENT REQUIREMENTS FOR PIPELINES

(1) An application for a pipeline must contain baseline data and an assessment of the projected cumulative short and long-term changes and adverse impacts that would result from construction, operation and maintenance of the pipeline for each alternative facility location and the associated impact zones whose boundaries are specified in the following sections, unless different impact zone boundaries are approved in writing by the department. The applicant must identify general and site-specific mitigation measures to reduce or eliminate these impacts. This information shall serve as a basis for evaluating and comparing alternative facility locations as required by Section 3.9, and selecting a preferred facility location as required by Section 3.10. Baseline data that require mapping shall be presented as electronic mapping files on the map required by Section 3.6(2) that will clearly portray the information. An application must contain the information required by Section 3.7(2) through (8), (9)(c) and (f), (11), (13), (14), and (16), and the following, in a format acceptable to the department:

(a) An application must contain the following data relating to the engineering of a facility for each alternative facility location:

- (i) a description of any engineering differences among the alternative facility locations, if any, relative to their ability to accommodate future pipelines or other linear facilities;
 - (ii) a discussion and appropriate drawings of alternative facility designs and technologies that would be required due to engineering differences among alternative facility locations, if any;
 - (iii) an electronic map showing the locations along each alternative facility location where the following operations or conditions are expected to occur and a tabulation of the miles of each alternative facility location that would cross each category:
 - (A) rock trenching that requires drilling and blasting;
 - (B) rock trenching that requires heavy ripping equipment, but not drilling and blasting; and
 - (C) cliffs and talus that would constrain construction.
 - (iv) seismic and geologic data sufficient to justify the facility design along any portion of an alternative facility location that is within one mile of an active fault or in areas of recorded seismic activity with a Richter magnitude greater than 5.5;
 - (v) a description of the seismic risk associated with each alternative facility location for the pipeline and for all above-ground associated facilities, based on the potential recurrence, rate, magnitude, and intensity of seismic events as well as ground accelerations and local geologic and soil conditions.
- (b) An application must contain the visual resource information required by Section 3.7(10), except that the information is required only for areas listed in Section 3.7(10)(h) that are located within 3/4 of a mile and within view of the right-of-way and other pipeline facilities along each alternative facility location.
- (c) An application must contain the applicable biological resource information required by Section 3.7(12), and the following information for each alternative facility location and the associated impact zones specified below:
- (i) a map at a scale of 1:4800 and a minimum resolution of 2 acres showing existing vegetation community types and land cover, based upon one or two dominant species and one or two under-story species for the following impact zones:
 - (A) areas within a 0.5-mile radius of pump or compressor stations;

(B) crossings of streams identified as having a fishery value class of I or II by the Montana department of fish, wildlife and parks and/or of any waterway with an average annual discharge of 1,000 cfs or more;

(ii) an electronic map showing migration routes between winter-spring and summer-fall habitat for elk, deer, moose, bighorn sheep, mountain goat and pronghorn that intersect each alternative facility location and data indicating the timing and use of these migration routes;

(iii) a detailed description of aquatic habitat, fish populations, special use sites such as spawning areas, and angler use for any of the following stream reaches:

(A) a reach of any perennial waterway extending 2 miles downstream from any trenched pipeline crossing of the stream;

(B) any additional waters where aquatic habitats could be adversely affected by siltation, sedimentation, or increases in turbidity caused by pipeline trenching or construction adjacent to a perennial stream;

(C) for liquid pipelines, any additional waters where aquatic habitats could be adversely affected by a liquid spill or leak;

(D) a reach of any stream from which hydrostatic testing water is to be withdrawn, extending 1/4 mile upstream and 5 miles downstream from the point of withdrawal;

(E) a reach extending 1/4 mile upstream and 5 miles downstream from any point on any perennial stream where hydrostatic testing discharge water would reach the stream.

(iv) for a liquid pipelines facility, a detailed assessment of the consequences of a spill or leak downstream of each crossing of a perennial waterway, including a description of the principal resources that would be affected, the magnitude of the impact to fishery resources and habitat, and a description of proposed spill detection, containment, and cleanup techniques; and

(v) for any wetlands or other waterfowl habitat downstream from a river crossing that could be adversely affected by a liquid spill or leak, information on seasonal abundance and species composition of waterfowl populations.

(d) An application must contain a list of the noxious weeds that occur along the alternative facility locations, an assessment of the impact the facility would have on the dispersion of these weeds, and a description of the weed control measures that would be used to mitigate the impacts.

(e) An application must contain the information on recreation areas and sites required

by Section 3.7(15), except that the impact zone differs and is specified in (b).

(f) An application must contain the information on stream locations required by Section 3.7(17), except that intermittent waterways that have specific names must also be included.

(g) An application must contain the water resource information required by Section 3.7(18), and an assessment of stream crossing impacts for each perennial stream crossed by an alternative facility location, including, but not limited to, estimates of the extent of floodplain disturbance, anticipated stream flow during construction, streambed excavation, and the duration and timing of instream activities.

(h) An application must contain the information on potential noise required by Section 3.7(19)(a) and (e) except that the information is required only for pumping stations or compressor stations for the proposed facility where residences are located within 500 feet of the property boundary of the station or where the station would be located in subdivided areas. An application shall contain a description of all measures proposed by the applicant to reduce noise.

(i) For any discharge to groundwater the application must contain an electronic map acceptable to the department indicating the proposed discharge point or points, the location of treatment works and disposal systems, a list of surface owners and lessees of land within one mile of the proposed discharge location, the location of water supply wells and springs within one mile of the proposed discharge point, description of waste or process solutions to be contained onsite, and information describing existing groundwater quality and uses within one mile of the site. The department may require the submission of additional data and information where warranted by the potential impacts of a source including but not limited to the following:

(i) for each site for proposed discharge of hydrostatic test water, discharge rates and volumes and likely chemical constituents including oil and other floating material, biochemical oxygen demand, settleable and suspended solids, acids, alkalies, dissolved salts, organic materials, toxic materials, compounds producing taste and odor in water and colored materials and dyes;

(ii) a discussion of potential for and measures to be taken for emergency and accidental spills of hydrostatic test water and products being transported by pipeline;

(iii) proposed measures to be taken to provide alternative water supplies or treatment in the event that any domestic, municipal, agricultural, commercial, or

industrial well is adversely affected by a proposed or accidental discharge;
and

(iv) a written evaluation of alternative disposal practices for maximization of environmental protection.

SECTION 3.9 COMPARISON OF ALTERNATIVE FACILITY LOCATIONS

(1) An application must contain a comparison of the alternative facility locations which includes the following:

(a) A summary of the most important impacts of the proposed facility for each of the alternative facility locations, and the impact zones as determined by the baseline study conducted pursuant to Section 3.7 or 3.8.

(b) A description of the degree to which the most important adverse impacts can be mitigated for each alternative facility location.

(c) A ranking of the alternative facility locations from best to worst for each of the following categories, and an indication of the relative differences among the alternatives for each category:

- (i) levelized annual costs, including environmental costs and mitigation costs;
- (ii) reliability;
- (iii) land use considerations;
- (iv) socioeconomic considerations;
- (v) earth resources;
- (vi) engineering considerations;
- (vii) visual resources;
- (viii) biological resources;
- (ix) historic, archaeologic and paleontologic resources;
- (x) recreation;
- (xi) water resources;
- (xii) noise, radio and television interference and electrical effects; and
- (xiii) any other categories that are important to the applicant. The applicant may combine or add to the categories as appropriate.

(d) A comparative ranking of the alternative facility locations from best to

worst and an indication of the magnitude of the differences between facility locations, considering all of the categories listed in (3) consistent with the requirements of Section 3.10.

SECTION 3.10 SELECTION OF THE PROPOSED FACILITY LOCATION

(1) The applicant must select a proposed facility location from the alternative locations selected in accordance with Section 3.5. An application shall contain a discussion of the rationale used to make the selection, including the following:

- (a) the applicant's selection criteria and how they were applied;
- (b) an explanation of how the preferred location criteria listed in Section 3.1(1) or (2) were applied. If weighting of the criteria is used in order to select the preferred facility location, an application must identify the relative weights given to each criterion and the reasons for assigning each weight;
- (c) a discussion of the relative importance of the categories listed in Section 3.1(1) or 3.1(2) depending on the type of linear facility, and identification of any categories that were considered more important than others in selecting the proposed facility location. An application must clearly explain any weighting system used to portray differences in importance among the categories in selecting the proposed facility location;
- (d) an explanation of how areas listed in Section 3.2(1)(d)(i)(iii) were considered in selecting the preferred route; and
- (e) an explanation of how areas listed in Section 3.2(1)(d)(iv) through (f) and 3.4(1) through (3), were considered in selecting the proposed facility location.