

ENVIRONMENTAL ASSESSMENT FACTORS



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HUD Resources

- HUD Guidance:
<https://www.hudexchange.info/environmental-review/environmental-assessments>
- Environmental Assessment Factors Guidance:
<https://www.hudexchange.info/resource/3306/environmental-assessment-factors-guidance/>



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Land Development

Compatible Land Use

- Certain types of land uses may be incompatible with one another.
- For example, it may be incompatible to locate a new housing development in a newly industrialized area.

Zoning ordinance

- the principal legal tool available for the implementation of its comprehensive plan and for the definition of the community's land use policies.
- Zoning regulates development patterns including construction, alteration, and use of buildings, structures, or land.
- HUD-funded projects must consider how the project will be adversely impacted by ill-suited land uses or, alternatively, how the project itself could impose or create adverse impacts.



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Land Development

Compatible Land Use

- Economic viability of a city's central business district
- Induce sprawled development in undeveloped portions of a community resulting in environmental and social costs
- Managed growth through the efficient use of available and publicly-funded infrastructure are consistent with federal sustainability objectives.
- HUD-funded infrastructure improvements made in the inner city may stimulate private investment and thereby help revitalize a lagging section of a community.



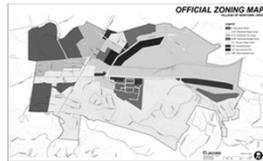
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Land Development

Compatible Land Use

Experts to Contact

- Local and Regional Planning Agency
- Zoning Review Officer or Administrator
- Planning Commission/Director
- State Planning Office



Questions to Consider

- What is the current zoning classification of the project location?
- What is the existing land use at the project location?
- How does the project relate to the existing land uses of the adjacent and surrounding properties?



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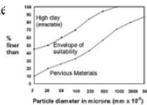
Land Development

Soil suitability

The physical capacity of a soil to support a particular land use.

Questions to Consider

- Is there evidence of ground subsidence, seismic activity, a high water table, or other unusual conditions on the site?
- Is there any visible evidence of soil problems (foundation cracking or settling, basement flooding, etc.) in the neighborhood of the site?
- Were structural borings or a dynamic soil analysis/ geotechnical study needed and conducted? If so, what were the findings of the report?
- Are there visual indications of filled ground?
- Will the project site significantly affect or be affected by unsuitable soil conditions?



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Land Development

Slope

Refers to changes in the physical features of the land: elevation, orientation, and topography.

Improper grading will often alter the surface water flow and may cause flooding for the site and the surrounding property owners.



Questions to Consider

- Is the site on a slope? If so, is it: slight, moderate, severe, or very severe?
- Is there a history of slope failure in the project area?
- Is there visual indication of previous slides or slumps in the project area, such as cracked walls, tilted trees, or fences?
- Will the project site significantly affect or be affected by slope conditions? If so, does its design plan include measures to overcome potential slope stability problems?



Land Development

Erosion

Erosion, transport, and sedimentation are the processes by which the land surface is worn away, moved, and deposited in another location. In urbanized areas, erosion can cause structural damage in buildings by undermining foundation support. It can pollute surface waters with sediment and increase the possibility of flooding by filling river or stream channels and urban storm drains.

Questions to Consider

- Is there evidence of erosion or sedimentation?
- If site clearance is required, does it include removal or vegetation, what are its effects, and how will erosion be managed and controlled?
- Is an erosion control plan included as part of construction and the construction contract?
- Will the project site significantly affect or be affected by erosion or sedimentation conditions? If so, does the design plan include measures to overcome potential erosion problems?



Land Development

Drainage/Stormwater Runoff

Stormwater management and its relationship to a proposed new development can be an essential determinant of whether a project is to be constructed. In assessing impacts to stormwater service facilities, two factors must be considered:

1. The proximity of the system to the site
2. The capacity of the system to accommodate the project.



Land Development

Drainage/Stormwater Runoff

Questions to Consider

- Is there indication of cross-lot runoff, swales, or drainage flows on the property?
- Are there visual indications of filled ground, active rills, or gullies on site?
- Will existing or planned storm water disposal and treatment systems adequately service the proposed development? Will the proposed project be adversely affected by proximity to these facilities?
- If the public storm sewer is not available, how will storm water drainage be handled?
- Is state/regional/local permitting required to control stormwater run-off, e.g., a National Pollution Discharge Elimination System (NPDES) permit? If so, what conditions will be required by the permit?



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Land Development

Hazards and Nuisances

Ensure that a project is located and designed in a manner which reduces any potential risk to the public or project users from both natural and man-made risks to people or property damage.

Experts to Contact if Potential Issue Occurs:

- Seismologist
- District officers of the Army Corps of Engineers
- District office of FEMA
- Local fire departments



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Land Development

Hazards and Nuisances

Questions to Consider

- Will the project be affected by any of the following hazards?

Natural hazards, including, but not limited to:

- Earthquakes - faults, fracture
- Volcanoes
- Landslides
- Fire-prone areas
- Droughts
- Floods
- Cliffs, bluffs, crevices
- Wind / sand storm concerns
- Hazardous terrain
- Poisonous plants, insects, animals



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Land Development

Energy Consumption

It has become increasingly important to both design and to locate new facilities in a way which minimizes energy usage.

Maximizing opportunities for energy efficiency can be incorporated in nearly all phases of project planning, location selection, site planning, and building design.



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Land Development

Energy Consumption

Questions to Consider

- Is the project being designed and constructed to meet the current version of the Energy Star performance standard?
- Have the architectural plans and building orientation taken full advantage of potential energy saving measures related to climate, sun and wind?
- Are Energy Star appliances, lighting heating, cooling and hot water systems to be installed?
- Does the project include programmable thermostats, occupancy sensors in common areas, water filters, insulated hot water pipes, and/or point-of-use/tankless hot water heaters?
- Is the location of the project in close proximity to transit, shopping, services and employment locations?
- Are state and federal rebates, tax incentives for energy efficiency strategies, and renewable energy components being considered?



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Land Development

Energy Consumption

Questions to Consider

- What is the estimated energy consumption of the proposal, and are the energy resources of the utility provider sufficient to support the proposal?
- Are renewable energy strategies being implemented in this project? If this is a rural project, was onsite energy generation considered (wind, fuel cell, or solar) in lieu of or in addition to a grid connection?
- What are the projected greenhouse gas (GHG) emissions of the project upon full occupancy? Are they significant?
- Does the estimated energy consumption of the proposal require a significant increase in energy production for the energy provider?



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Socioeconomic

Employment and Income Patterns

Employment-related impacts of a project can be grouped into three broad categories: temporary jobs created in construction, permanent jobs created and the job requirements of new residents.

Questions to Consider

- Will the project either significantly increase or decrease temporary and/or permanent employment opportunities?
- What is the profile of new jobs created by the project? What is the distribution across the skills and income scale? How do these relate to the skills and income profile of project area residents?
- Will the new jobs likely go to area residents, low-income, unemployed, and minority group members?
- If the jobs don't go to area residents, where are the new employees likely to come from (i.e., inner city, suburbs)?



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Socioeconomic

Displacement

Displacement refers to the dislocation of people, businesses, institutions, or community facilities as a result of a project.

Questions to Consider

- Will the project directly displace individuals or families? How many persons? Is the displacement covered by the Uniform Relocation Act and are funds available for payment?
- Will the project destroy or relocate existing jobs, community facilities, or any business establishments? Is the displacement covered by the Uniform Relocation Act, and are funds available for payments?
- Are replacement facilities or housing units available within the community or in a nearby neighborhood? What will be the effect of the relocation on these neighborhoods?
- Will the project result in probable indirect displacement? If so, have measures been planned to alleviate the hardship on those affected whose displacement is not covered under the Act?



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Community Facilities and Services

Educational and Cultural Facilities

There are two fundamental considerations regarding a HUD activity's relationship to and/or impact schools: adequate capacity for children in the school(s) and safe access.

Questions to Consider

- What is the projected increase in student population to be created by the proposed development?
- Will the additional school age children exceed the capacity of the existing or planned school facilities? If so, what measures will be taken to resolve potential problems/conflicts?
- Does the potentially affected school(s) have adequate and safe access facilities (i.e. walking paths, bus routes, crosswalks and guards) given any calculations done for projected population increase? Are these adequate both in terms of safety and access?
- Will additional or alternative facilities have to be provided to ensure safety and suitable access?

This School Is Overcrowded
Students May Be Assigned to Another School in the Los Banos Unified School District



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Community Facilities and Services

Commercial Facilities

There are two key considerations in assessing commercial facilities.

- An evaluation of the adequacy of existing commercial facilities to service the development.
- The impact which a proposed development will likely have on surrounding commercial establishments.



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Community Facilities and Services

Commercial Facilities

Questions to Consider

- Do local retail services meet the needs of project occupants/users? Are they affordable, and is the range of services adequate?
- Is there adequate and convenient access to retail services? In the case of elderly, this means that shopping for essential items as food and medicine is within three blocks and banks and other convenience shopping are within walking distance.
- In areas not readily serviced by retail services, is public transportation that can carry commuters to retail services within one-half hour available? If public transportation is not available will readily available transportation services be provided?
- Will existing retail and commercial services be adversely impacted or displaced by the proposed project??



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Community Facilities and Services

Health Care and Social Services

Social services can be defined as those services including but not limited to programs for drug addiction, alcoholism, and mental disorders; halfway houses and drop-in centers, family counseling centers, day care centers; services for senior citizens and the handicapped; nutrition centers, etc. Social services by definition must cater to, and be easily accessible to, those who need them.

Questions to Consider

- Are the social services located onsite or within a convenient and reasonable distance to residents of the proposed project? Or, is adequate public transportation available from the project to these services?
- Will social services be overtaxed or negatively impacted by the proposed project?
- Will the provision of additional social services at this site create a concentration of the disadvantaged in violation of HUD site and neighborhood standards?



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Community Facilities and Services

Solid Waste Disposal and Recycling

Solid waste disposal is regarded as an essential service in urban areas. Its availability for supporting a newly proposed development can be an essential determinant of whether a project can be constructed.

For proposed demolition projects, the ability of the solid waste centers to contain the demolition material should be considered. In some cases the material from the demolition activity may overwhelm the existing solid waste capacity and the need to obtain additional solid waste capacity may justify the cost of rehabilitating the structure, particularly if the structure serves as an important historic or cultural resources.

For all projects, proper disposal of hazardous material should be considered. This may include solid porous materials, such as cement, that may have absorbed hazardous materials.



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Community Facilities and Services

Solid Waste Disposal and Recycling

Questions to Consider

- What types and amounts of waste are to be generated as construction debris?
- What solid waste disposal system or company will handle the construction debris? Does it have the capacity to handle the amount of debris?
- What types of solid waste (including hazardous waste, if any) will be generated by the completed project?
- What is the name of the solid waste servicing company or landfill and what is the distance from the proposed project site?
- What organization will handle garbage collection, composting, and recycling?
- Does this organization have the capacity to handle the garbage, composting and recycling, and is the service affordable?
- Will the waste from the proposal exceed the capacity of the waste system or landfill?



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Community Facilities and Services

Waste Water and Sanitary Sewers

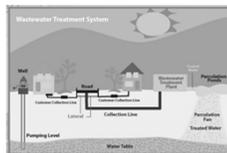
Wastewater treatment and disposal is an essential service for all new development. The availability of adequate wastewater disposal service can be a determinant of whether or not a project is constructed.

Questions to Consider

- What kind of wastewater/sewer system will provide satisfactory service to the proposal?
- Does the existing or proposed sewer system have the capacity to adequately service the proposed development?

On-site septic systems

- If the sanitary sewers and wastewater disposal systems are non-municipal, has an acceptable system been approved or permitted by appropriate authorities and agencies?
- Has a report of the soil conditions suitable for on-site septic systems been submitted?
- Are soil conditions suitable for on-site septic systems? Is there a large variance in the water table elevation? (A high seasonal water table can prevent proper functioning of septic tanks drain fields).



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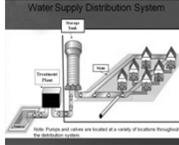
Community Facilities and Services

Water Supply

Adequate water supply refers to the delivery to a project site of sufficient quantities of potable water under adequate pressure at affordable cost. Approximately 100 gallons per day is the average urban domestic per capita water consumption rate.

Questions to Consider

- What private company or public organization or system will provide sufficient quantity of clean water needed for the proposal?
- Will either the municipal or private water utility or on-site water supply be adequate to serve the proposed project?
- Is the water supply quality safe from a chemical and bacteriological standpoint?
- If the water supply is non-municipal, has an acceptable system been approved by appropriate authorities and agencies?
- Will the project water requirements of the proposal result in a significant consumption of the community's available water supply or result in a significant deterioration of water quality?



Community Facilities and Services

Emergency Services

Fire, police, and ambulance services are concerns that should be considered in terms of the adequacy of existing services for the project site.

Questions to Consider

- What police services and fire fighting protection services are located within reasonable proximity to the proposed project? What is the approximate response time?
- Is the fire fighting protection service adequate and equipped to service the project?
- What emergency health care providers are located within reasonable proximity to the proposed project? What is the approximate response time?
- Will the project create a significant burden on police, fire or health care providers in terms of manpower and/or equipment?



Community Facilities and Services

Parks and Recreation

Recreation and open space resources include active recreation such as ball fields, passive recreation such as nature trails, and gardens.

Questions to Consider

- Are open space and recreational and cultural facilities within reasonable walking distance to the project area, or is adequate public transportation available from the project to these facilities?
- Are there special recreational/cultural needs of certain population groups to be satisfied, such as small children, the elderly, or the handicapped?
- If the development is family housing, has space for informal play for children been included on-site?
- Have areas for recreation for adults and elderly been provided including places for passive recreation?
- Will the proposed project overload existing open space, recreational or cultural facilities?



Community Facilities and Services

Transportation and Accessibility

Assessing transportation impacts involves analyzing four sub-elements of transportation:

- Access—The user must be able to reach a destination within reasonable limits of time, cost and convenience.
- Balance—A balanced transportation system offers and encourages choice of travel mode, namely, by automobile, bicycle, walking, public transit or combination thereof.
- Safety—System design plays a strong role in safety, particularly elements such as traffic signals, turning lanes, bicycle lanes and signage, and railroad grade crossings.
- Level of Service—LOS measures operational factors including speed, travel delay, freedom to maneuver, safety, and frequency/hours of operation.



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Community Facilities and Services

Transportation and Accessibility

- Overall, will the existing and reasonably foreseeable transportation facilities and services be adequate to meet the needs of the project?
- Will the project itself cause a significant adverse impact on the local or regional transportation system (e.g., by reducing the level of service of roadways)?
- Are there any barriers to emergency vehicle access?
- Is the project accessible to the elderly and disabled (e.g., wheelchair ramps, traffic light timing, handicapped parking, shuttle services)?
- Are there special transportation issues (e.g., bridge clearances for trucks) which have not been adequately addressed?



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Natural Features

Unique Natural Features

Examples of unique natural features include:

- Sand dunes
- Waterfalls
- Unique rock outcroppings
- Caves with limestone or gypsum deposits
- Canyons
- Petrified forests
- Unique stands of trees, such as redwoods
- Unique colonies of animals, such as a prairie dog town.



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Natural Features

Unique Natural Features

Experts to contact if there are potential issues:

- State and federal park service, naturalists and/or geologists
- State natural heritage programs
- State wildlife resource management agencies
- Local university natural scientists, geologists, and Sierra Club or Audubon Society
- Representatives
- State resource conservationist
- Natural Resources Conservation Service (NRCS) - USDA
- District conservationist, NRCS
- County planner, county planning department or conservation district



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Natural Features

Unique Natural Features

Questions to consider:

- Will the project location, construction, or its users adversely impact unique or locally important natural features on or near the site (e.g., caves, cliffs, vistas/viewsheds, canyons, waterfalls, sand dunes, or tree stands)?
- Will the project destroy or isolate from public or scientific access the unique natural feature?



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FINDINGS DETERMINATION & APPROVALS



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Must Identify and List Conditions and Mitigation Measures Necessary for Approval

- Summarize all mitigation measures adopted by the Responsible Entity to reduce, avoid, or eliminate adverse environmental impacts and to avoid non-compliance or non-conformance with the listed authorities and factors.
- These measures/conditions must be incorporated into project contracts, development agreements, and other relevant documents.
- The staff responsible for implementing and monitoring mitigation measures should be clearly identified in the mitigation plan.



Environmental Finding

- Finding of No Significant Impact (FONSI) [24 CFR 58.40(g)(1); 40 CFR 1508.27] The project will not result in a significant impact on the quality of the human environment.
- Finding of Significant Impact [24 CFR 58.40(g)(2); 40 CFR 1508.27] The project may significantly affect the quality of the human environment.



ERR Documentation

Include the following, as applicable:

- All supporting documentation for each resources assessed.
- Additional Studies Performed (Phase 1 ESA)
- Field Inspection (Date and completed by)
- List of Sources, Agencies and Persons Consulted [40 CFR 1508.9(b)]
- List of Permits Obtained
- Public Outreach [24 CFR 50.23 & 58.43]
- Cumulative Impact Analysis [24 CFR 58.32]
- Alternatives [24 CFR 58.40(e); 40 CFR 1508.9]
- No Action Alternative [24 CFR 58.40(e)]
- Summary of Findings and Conclusions



Signatures and Approvals

- Preparer signs and dates, once environmental review is complete.
- Certifying Officer signs and dates (Can be signed along with HUD-7015.15)
- The original, signed document and related supporting material must be retained on file by the Responsible Entity in an Environmental Review Record (ERR) for the activity/project (ref: 24 CFR Part 58.38) and in accordance with recordkeeping requirements for the HUD program(s).



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Questions?



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