



Public Health in Land Use Planning & Community Design

NACCHO and the Tri-County Health Department in Colorado developed this checklist to assist local public health agencies (LPHAs) in their review of applications for new development or redevelopment plans in their communities. The checklist provides a method to ensure long term protection of public health and consistency in comments submitted for development plans, and broadens the health issues commented on by LPHAs during the planning process. It can also be used to identify potential health impacts and provide a screening process for improving the quality of decision-making. The checklist addresses not only those issues that LPHAs have regulatory authority over, but also the many public health issues that may arise during development and require policy change or other interventions. LPHAs can also incorporate issues that are specific to their jurisdictions. LPHAs should share the checklist with their local planning departments, elected officials, and the public, both to increase awareness of public health issues associated with land use planning and community design, and to encourage appropriate referral of applications to LPHAs for review and comment.

✓ Water Quality

What is the source of water for the project?

A public system or individual well(s)?

If public, does the agency have any regulatory responsibility for quality assurance?

If private, are wellhead protection procedures proposed? Are the well(s) completed in an area of the aquifer that is free from identified or potential sources of contamination?

In rural areas where gas or oil exploration is occurring, are domestic wells planned with adequate setbacks from gas or oil wells?

Does the project adequately address stormwater?

What is the drainage pattern on the site?

Are there indications of drainage problems, such as erosion, steep topography, wetlands, boggy areas, etc.?

Are there adjacent or nearby bodies of water (lakes, reservoirs, ditches, streams, etc.) that receive drainage from the site?

If an erosion control plan has been provided, are effective erosion control methods proposed during construction? Post-construction?

Does the plan include effective project-specific or regional stormwater quality measures? Both engineered and non-engineered?

Does the proposed use warrant specific best management or pollution prevention practices?

(e.g., proper use of pesticides on golf courses)

Does the project include unnecessarily large expanses of paved areas?

Is the property in a floodplain or a groundwater (aquifer) recharge area?

Does the proposed use have the potential to release hazardous products or wastes into the surface or

groundwater? (e.g., AST/USTs; chemicals, including agricultural chemicals such as pesticides and herbicides; asbestos)

For more information, visit:

www.epa.gov/water/yearofcleanwater/docs/growthwater.pdf

<http://ohioline.osu.edu/ws-fact/0003.html>

www.ire.ubc.ca/ecoresearch/publica3.html

www.fhwa.dot.gov/environment/wtrshd96.htm

www.cdc.gov/healthyplaces/about.htm

✓ Wastewater

Is the proposed wastewater treatment system adequate and effective?

Centralized service

If new central service is proposed, does the proposed facility have an approved utility plan?

If new central service is not proposed, is the proposed project within the service area of an existing municipal utility or wastewater treatment district, based on its approved utility plan?

Does the existing or proposed service provider have the capacity to serve the development in compliance with regulatory requirements?

Is the proposed system fiscally sound?

Individual sewage disposal systems (ISDS)

What type of systems do the soils warrant?

Are there site features or areas that should be avoided as ISDS locations? What are appropriate setbacks?

Should certain site uses be prohibited from discharging into the ISDS? Are provisions in place to segregate and collect these discharges?

For more information, visit:

www.asu.edu/caed/proceedings01/HOOVER/hover.htm



✓ Water Quantity

Is there a sustainable water supply for the proposed use?
Has the permitting agency (e.g., State Engineer's Office) provided written confirmation that the applicant owns sufficient water rights for the proposed development?
Does the landscaping plan include appropriate water conservation measures?
Are there opportunities for recycling or reuse of water and wastewater generated by the project?

For more information, visit:

www.epa.gov/ost/stormwater/usw_a.pdf
www.epa.gov/ordntrnt/ORD/WebPubs/runoff.pdf
www.epa.gov/owow/nps/lidnatl.pdf
www.epa.gov/livability/pdf/growthwater.pdf

✓ Air Quality

From an air quality perspective, is the proposed use compatible with adjacent uses?
Will the proposed use emit air pollutants? Does it require an emissions permit?
Are fugitive dust emissions a potential problem? During construction? Post-construction? What mitigation measures should be taken?
Will the project be served by paved roads? If not, is paving recommended?
Does the proposed use generate odors?
If the project will emit air pollutants or odors, what measures should be employed to eliminate or mitigate the emissions?
As the project develops, will there be adequate transportation infrastructure in place to absorb the volume of traffic generated by the project without degrading air quality?
Is the project designed to reduce vehicle emissions? E.g. grid layout or non-circuitous street system, internal and external connectivity, mixed uses
Is the project designed to offer and encourage the use of travel choices in addition to the automobile? E.g., Transit-friendly design, bike/pedestrian trails, etc.
Is the project in close proximity to cell towers, power lines or other uses that emit potentially harmful electromagnetic radiation?

For more information, visit:

www.epa.gov/otaq/transp/trancont/r01001.pdf
www.fhwa.dot.gov/environment/air_abs.htm

✓ Opportunities for Physical Fitness

Are open spaces and trails included to provide regular opportunity for physical activities such as walking and biking?
Are communities built with mixed-use commercial and residential purposes, and with sidewalks so that people can walk to movies, restaurants, and so on?
Are schools built within communities so that young people can walk to school?
Are sidewalks wide enough for multiple uses (e.g., bikes and walkers)?
Is lighting placed along trails and sidewalks to increase the comfort level of those using them?
Is there park space and equipment for children to play with?

For more information, visit:

www.surgeongeneral.gov/topics/obesity/
www.sprawlwatch.org/health.pdf
www.nga.org/common/issueBriefDetailPrint/1,1434,2473,00.html
www.vtppi.org/walkability.pdf

✓ Transportation and Injury Prevention

If the proposed use involves significant truck traffic, does the site plan provide adequate room for truck turnarounds and safe truck access and egress, relative to neighboring developments?
Does the proposed project include safe routes to school with a minimum of street crossings and high visibility for children walking to school?
Does the proposed plan include pedestrian signals and mid-street islands on busy streets, and presence of bicycle lanes and trails?
Does the project include traffic quieting road designs in both subdivisions and shopping districts?
Does the project provide adequate neighborhood access to public transportation?
Does the proposed project include ramps, depressed curbs or periodic breaks in curbs that act as ramps for people with disabilities?
Does the proposed project include voice/audio or visual clues provided at crosswalks and transit stops?
Does the project comply with ADA requirements for design of curb ramps, cross slopes and detectible warnings for new construction or retrofit projects?



For more information, visit:

www.transact.org/Reports/driven/
www.cta.ornl.gov/npts/1995/doc/NPTS_Booklet.pdf
www.aaafoundation.org/resources/index.cfm?button=agdrtext
www-nrd.nhtsa.dot.gov/pdf/nrd-30/NCSA/Tsf2001/2001pedestrian.pdf

✓ Noise

Is the proposed project compatible with neighboring uses from a noise perspective?
Is the proposed project subject to nuisance noises from nearby uses such as airports, high volume roadways, industrial uses?
Is the proposed project likely to generate noises that will create a nuisance to neighboring uses?
Are there engineered or non-engineered measures that can be employed to mitigate nuisance noises, such as setbacks, sound walls, vegetative barriers, operational practices, and so on?

For more information, visit:

www.culturechange.org/issue19/vehicle_noise.htm
www.noiseways.org/

✓ Natural and Manmade Hazards

Is the site in a flood or landslide prone area?
Is the proposed use appropriate for the site, given the potential hazard(s)?
Does the proposed use present the potential for releases or spills of toxic materials? (E.g., above or underground storage tanks, drum storage, pool chemicals, etc.)
What measures (e.g., engineering controls, design features or buffering) should be employed to eliminate or mitigate the hazard(s)?

✓ Solid and Hazardous Waste Disposal

Is the geology and hydrology of the site suitable for the proposed waste handling or disposal activity?
Is the proposed waste handling or disposal activity compatible with adjacent existing or zoned uses?
What design, operational or pollution prevention practices should be employed to reduce the likelihood of releases or to mitigate potential impacts from the proposed waste handling or disposal activity?

Are plans in place to prevent release of hazardous materials into the environment in the event of an on-site fire?

For more information, visit:

www.plannersweb.com/sprawl/solutions_regional.html
www.epa.gov/compliance/resources/publications/ej/reducing_risk_com_vol1.pdf

✓ Past Site Uses

Is there historic evidence of solid or hazardous waste disposal or releases on or adjacent to the site? If so, is there potential for exposure or risk due to contamination or explosive gases?
What additional information, monitoring, or mitigation measures of these sites are necessary?
Are new industrial facilities planned? Have the potential impacts on health been assessed?

For more information, visit:

www.sustainable.doe.gov/landuse/brownf.shtml
www.brownfield.org/Action/Landuse/BAP%20land.pdf

✓ Bulk Storage Facilities (e.g., chemicals, fertilizers, etc.)

What design, operational or pollution prevention practices should be employed to reduce the likelihood of releases or to mitigate potential impacts in the event of a release?
Are adequate secondary containment measures proposed?
Does the facility have an adequate proposal for or an approved spill prevention control and countermeasures (SPCC) plan?
Is the facility near vulnerable resources that may require contingency planning for protection in the event of an on-site fire?

For more information, visit:

www.epa.gov/nerlesd1/land-sci/pdf/335leb99.pdf

✓ Zoonosis

Is the site on or adjacent to an area that might involve the risk of zoonotic disease transmission such as West Nile virus? If so, have measures been taken to prevent spread of zoonotic diseases such as filling in pools of water or open ditches that may provide breeding grounds for mosquitos or vermin?



Have abatement/vector control measures been considered? If lethal control is proposed, is the applicant aware of regulatory standards for controlled use of pesticides?

✓ Health Equity

Are disadvantaged populations at greater risk of exposure to environmental hazards?
How are potential hazards distributed across the community among different population groups?
Are affected residents involved in the planning process?
Have they been involved in providing data about their neighborhoods?
Does the proposed project present unsafe conditions or deter access and free mobility for the physically handicapped?
Are there information barriers preventing people with disabilities from participating in the planning process?
What is the overall picture of environmental hazards among all of the categories listed in the checklist, particularly for low-income communities?
What zoning decisions under consideration would alleviate or exacerbate the potential for creating environmental exposures to contaminants?
What health data exist for the community that indicate leading causes of mortality and morbidity? How might they be important for expected redevelopment?

For more information, visit:

www.sprawlwatch.org/health.pdf

www.ejrc.cau.edu/natsmartgrwthinit.htm

✓ Additional Resources

www.nrdc.org/cities/smartGrowth/solve/solveinx.asp

www.biodiversityproject.org/messagekit.htm

✓ Case Studies

www.plannersweb.com/sprawl/solutions_regional.html

[www.nga.org/common/issueBriefDetailPrint/
1,1434,2488,00.html](http://www.nga.org/common/issueBriefDetailPrint/1,1434,2488,00.html)