

LAND USE LEADERSHIP ALLIANCE

TRAINING PROGRAM

QUESTIONS TO GUIDE WATER & LAND USE PLANNING INTEGRATION

November 2013

Introduction

The first thing that a local government should do when attempting to integrate land use and water conservation planning is to assess its water conservation plans and related ordinances / code provisions and address the disconnect between these documents and the community's comprehensive plan. The questions presented below should prove useful in this assessment. Many of the questions are adapted from the University of Louisville's *Kentucky Wet-Growth Handbook*,¹ while others have been adapted from leading literature on the topic of land use and water planning integration.

These questions are intended to guide a community through the process of assessing the extent to which water conservation is incorporated into a community's comprehensive plan, and the extent to which local land use regulations, building codes, and development processes are consistent with this element of the comprehensive plan. Although the questions focus primarily on water *conservation*, they also acknowledge the importance of balancing supply and demand, maintaining water quality, and other issues that relate to water conservation and contribute to an over-all water element within a comprehensive plan. Communities should keep in mind that a larger water element could contain many components in addition to water conservation, such as water quality, supply, demand, reuse, regional partnerships, and many more.

In this document, we assume that your community has both a *comprehensive land use* plan and a separate *water conservation plan*. We further assume that your community wishes to draft a discrete *water element* in its comprehensive plan and that this element will contain at least one water conservation goal, one or more short-term objectives, and strategies for achieving each objective. Finally, each objective will have a full list of implementation techniques, which can be listed without being described in detail. Then, we assume that all strategies and implementation techniques will reappear in more detail in either the community's *zoning, subdivision, or site plan regulations, or building or plumbing codes*. The matrix we presented to you therefore contains all of the above in the water conservation element of the comprehensive plan and then indicates where in the community's

¹Kentucky Wet Growth Tools for Sustainable Development, Craig Anthony Arnold, Carol Norton, Dustin Wallen University of Louisville Center for Land Use and Environmental Responsibility, (2009) at 215-219, available at: <http://louisville.edu/landuse/healthy-watersheds-land-use-initiative.html>.

regulations each implementation technique should be found. In this way, both water and land planners have a complete framework for working on a comprehensive and inclusive water conservation element, which should then influence the addition of water conservation implementation techniques into the community's land use regulations.

Questions

- (1) Does your comprehensive plan contain a water element?
- (2) Does this element identify water conservation goals and objectives?
 - a. If yes, is your community's water conservation plan consistent with these adopted goals and objectives?
- (3) Does your comprehensive plan's water element identify water conservation strategies and implementation techniques?
 - a. If yes, is your water conservation plan consistent with these adopted strategies and implementation techniques?
- (4) Does your comprehensive plan identify known supplies of water for future development and/or incorporate water supply availability projections? (Ideally, these projections should factor in conditions from short-term, severe droughts to the possibility of global climate change.)
- (5) Is your water element consistent with the growth projections and land use assumptions in other parts of your comprehensive plan?
- (6) Does your comprehensive plan quantify the water demand that would result from this projected population growth?
 - a. If yes, does your comprehensive plan analyze how this demand will be met by available supplies (or what additional water will have to be obtained)?
 - b. If yes, did your land use planners work in close cooperation with water planners on this exercise in long-term thinking?
- (7) Is the water element of your comprehensive plan consistent with applicable regional water plans and the State water plan? (State water plan to be in place by Dec. 2014.)
- (8) Is the water element of your comprehensive plan consistent with the policies of your water provider (if it is not a city utility)?

- (9) Is the water element of your comprehensive plan consistent with land use patterns described in DRCOG's MetroVision?
- (10) Does your municipality consider the water element of your comprehensive plan when making development decisions, infrastructure investment decisions, and budget expenditures? (Without this link, development decisions can reflect short-term expedient responses rather than long-term public interests.)
- (11) Are your zoning regulations consistent with your comprehensive plan and water conservation plan? (i.e., Do they implement the strategies outlined in your comprehensive plan?)
- (12) Are your site plan and subdivision regulations consistent with your comprehensive plan and water conservation plan? (i.e., Do they implement the strategies outlined in your comprehensive plan?)
- (13) Are your water conservation regulations consistent with your comprehensive plan? (i.e., Do they implement the strategies outlined in your comprehensive plan?)
- (14) Are your building and plumbing codes consistent with your comprehensive plan and water conservation plan? (i.e., Do they implement the strategies outlined in your comprehensive plan?)
- (15) Does your comprehensive plan provide for and encourage compact, mixed-use, infill development (particularly the combination of residential and commercial/retail) and does your water element cross-reference that portion of your comprehensive plan?
- (16) Does your comprehensive plan allow for small lot, single-family, limited landscape development and does your water element cross-reference that portion of your comprehensive plan?
- (17) Does the water element of your comprehensive plan contain a strategy for your rezoning, development approvals, and permits to ensure that the proposed project does not adversely affect water supplies and resources?
- (18) Does the water element of your comprehensive plan include a strategy for your decision makers to condition development proposals to limit water use? (Perhaps including requirements for the particular project that are appropriate to the project, its location, and the likely impacts it will have unless it is conditioned or restricted.)
- (19) Does the water element of your comprehensive plan include strategies and implementation techniques (to be incorporated into land use regulations and

building codes) for water-efficient land use? (e.g., Urban growth boundary, cluster development, setback requirements, demand-based tap fees, etc.)

- (20) Does the water element of your comprehensive plan include strategies and implementation techniques (to be incorporated into land use regulations and building codes) for equipment? (e.g., Indoor fixture efficiency standards, smart meters, etc.)
- (21) Does the water element of your comprehensive plan include strategies and implementation techniques (to be incorporated into land use regulations and building codes) for landscaping? (e.g., Soil quality requirements, plant lists, turf limitations, irrigation system efficiency requirements, etc.)
- a. If yes, do these strategies include that the landscaping requirements in your land use regulations will allow or favor native landscaping, xeriscaping, rain gardens, vegetated swales and other ground water infiltration projects?
 - b. Also if yes, do these strategies include that your public-works/transportation policies will require that major street projects retrofit existing streets and related facilities with xeriscaping or other low-impact methods?
- (22) Does the water element of your comprehensive plan contain a strategy for your regulations and plans to allow or require narrower streets, sidewalks on only one side of the street, xeriscaped islands in cul-de-sacs, pervious pavement, short or shared driveways, and other street layout alternatives that minimize impervious cover? (*Note:* These are good tools to help water get back into the ground for ground water supply but they must be done in consultation with emergency officials to address emergency vehicle access.)
- (23) Does the water element of your comprehensive plan contain a strategy for your land use regulations and building codes to allow or require that streets, parking lots, medians, and other transportation facilities be curbside so as to allow water to run into landscaped areas, and allow or require that street-side swales be used instead of conventional curb and gutter design?
- (24) Does the water element of your comprehensive plan contain a strategy for your land use regulations and building codes to encourage or require the use of parking garages for substantial commercial, industrial, institutional, or multi-family residential developments, instead of surface parking lots, thus reducing the overall impervious cover footprint of the parking demands of these projects?
- (25) Does the water element of your comprehensive plan contain a strategy to incentivize landowners (through zoning bonuses, a stream-lined development

processes, etc.) to use water-conserving, land use techniques that exceed those required by your land use regulations?²

(26) Does the water element of your comprehensive plan contain a strategy for your codes to include a mandatory assured water supply regulation (a.k.a., a “show me the water” law) requiring that developers provide a professional assessment under various hydrologic conditions? (*Note:* Consider having this regulation require actual proof of an adequate water supply to meet the development’s needs, instead of simply the potential that sufficient water may exist in the future.)

(27) Does the water element of your comprehensive plan contain a strategy for your land use regulations and building codes to include strong and effective post-occupancy enforcement provisions? (These might include, for example, maintenance guidelines, periodic inspections, post-occupancy documentation, property tax abatements, etc.)³

² For best practice examples and more ideas on incentives, see the “Incentives Program for Green Development” portion of the *Best Practices in Water-Focused Green Development Policies* handout created by the Land Use Law Center for Day 3 of your training program.

³ For best practice examples and more ideas on post-occupancy enforcement, see the *Post-Occupancy Enforcement of Water Conservation Requirements* handout created by the Land Use Law Center for Day 4 of your training program.