

Proposed Update of “Policy Position on Protection of Water Supply Reservoirs”

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Introduction

Twenty-five years ago, NCTCOG and the seven major water supply agencies developed and endorsed the “Policy Position on Protection of Water Supply Reservoirs.” Over the past year and a half, through a series of regional workshops, committee meetings, and one-on-one discussions, NCTCOG has considered the progress made since 1986 as well as the opportunities and challenges ahead for protection of the region’s water supply reservoirs.

Challenges and Opportunities for Watershed Protection

In the spring of 2010, NCTCOG held 14 watershed roundtables throughout the 12 county metropolitan planning area, partnering with more than 35 local government organizations to discuss connecting people, places, and programs at a watershed level. The primary goals of the meetings were to learn about local experiences in the watersheds, encourage more cooperation around the watershed and subwatershed geographies, and to help craft long-range strategies for restoring the Trinity River and protecting the region’s water supply reservoirs.

During these meetings, almost 250 attendees from approximately 125 organizations participated in an interactive “post-it note” exercise to determine strengths, opportunities and challenges in each of the watersheds. These comments were analyzed and a report outlining these findings can be accessed at http://www.nctcog.org/envir/SEEscg/REF/Watershed_Roundtable_ARRA_FinalSummaryReport.pdf.

Review of the Policy Position

NCTCOG most recently met with stakeholders living and working in watersheds that drain to water supply reservoirs within the Upper Trinity River Basin in May 2011. Four meetings were held—one for the Lewisville Lake, Ray Roberts Lake, and Grapevine Lake watersheds (May 10), one for the Lake Worth/Eagle Mountain Lake and Lake Bridgeport watershed (May 11), one for the Arlington/Benbrook/Joe Pool/Weatherford Lakes watershed (May 16), and one for the Lake Ray Hubbard and Lavon Lake watersheds (May 17). The overall theme for these meetings was the 1986 Policy Position on the Protection of Water Supply Reservoirs. NCTCOG seeks to revise this policy position. Meeting presentations and discussions were centered on this policy position.

To assist in NCTCOG’s effort to revise this policy position, NCTCOG sought input from meeting attendees on what elements of watershed protection are important to them and what additional elements are needed to enhance the 1986 Policy Position on the Protection of Water Supply Reservoirs. The 101 comments received were related to issues in the watersheds and potential actions for protecting water supply reservoirs. See Appendix A for the full list of comments organized by watershed meeting and Appendix B for the comments organized by watershed as an issue, action, or both. See Appendix C for summarized lists of issues and actions.

The list of potential actions for protecting water supply reservoirs was then related to the 1986 Policy Position. See Appendix D for details. Most of the actions were already being addressed in the policy position; however, several policies were reworded and several were added to address the comments received at the May 2011 meetings. The proposed revised policy position is presented below.

Proposed Updated “Policy Position on the Protection of Water Supply Reservoirs”

1. Reservoir water quality must be protected on a watershed-basis.
2. Citizens must be convinced of the vital need, and local governments empowered, to protect lake water quality.
3. Prevention of water pollution must be emphasized, since prevention is much more cost-effective than pollution correction of water treatment.
4. Regional agencies should be designated by the state to manage wastewater treatment in reservoir watersheds.
5. Alternative wastewater treatment processes providing for the conservation and reclamation of water should be considered.
6. Wastewater treatment levels must be sufficiently stringent to protect lake quality, including nutrient and toxic controls where necessary.
7. The Source Water Protection G300 Standard adopted by the American Water Works Association should be pursued on a watershed basis.
8. Illegal dumping and unpermitted landfill operations must be stopped.
9. Comprehensive stormwater management programs that include control of significant nonpoint sources of pollution must continue.
10. Septic tanks should be used only in rural areas under strict local government regulations.
11. A coordinated monitoring, analysis, and reporting system should be implemented for all reservoirs and their watersheds.
12. Strategies to reduce the impact that development and certain land uses can have on reservoir water quality should be assessed and implemented.
13. Invasive species must be addressed to prevent the spread and introduction to local reservoirs.
14. Establishment of legal authorities to protect regional watersheds should be considered.
15. Options to fund or financially incentivize local programs to protect reservoir water quality should be explored.
16. Indoor and outdoor water must be conserved to protect regional water supplies.
17. Areas in their natural state that benefit reservoir water quality should be conserved.

Next Steps

NCTCOG’s Water Resources Council (WRC), consisting of the major water agencies and customer cities, has established a Watershed Protection Committee to review the findings to date, solicit feedback from the affected agencies and cities including potential cost-sharing opportunities, and make recommendations to the WRC for approval and action by NCTCOG’s Executive Board.

Appendix A

Stakeholder Comments on Watershed Protection Organized by Meeting

Lewisville Lake, Ray Roberts Lake, and Lake Grapevine Watersheds:

- Impacts of the ever growing population of feral swine on watersheds
- TV/media ads discouraging over-fertilization of yards. Most city dwellers are not familiar with proper land management. They need education on proper lawn and landscape management. I suggest using Howard Garrett and encourage organic fertilizers.
- NCTCOG provide funding assistance to general law municipalities (population under 5,000) to prepare for the Phase II municipal separate storm sewer system (MS4) permit
- Watershed planning, stormwater management
- For public education, consider producing some short (1 to 2 minutes) jargon-free videos for use by some of the local town web sites
- Lack of legal authority for watershed management
- Inhibit invasive species
- Coordinated regional approach to watershed management (e.g. education, land conservation)
- It's challenging bringing people together
- Watershed education
- Stream morphology and how the built environment affects this is an issue
- Appreciate the work the Regional Stormwater Management Program is doing
- Regional guide for floodplain management outlining a regional standard is needed
- Land developer is concerned about the bottom line, and so land protection strategies must take this into account
- Funding to comply with MS4 stormwater permit, especially for small communities
- Nutrient standards and impact on wastewater discharges
- Water quality simulation in Lewisville Lake?
- Coordinate on invasive species

Lake Worth/Eagle Mountain Lake and Lake Bridgeport Watersheds:

- Pulling in the science, cooperative efforts are important
- Northern parts of the watershed are mostly rural, reaching out more to those areas is needed
- Encourage more communities to adopt programs (e.g. integrated Stormwater Management, Corridor Development Certificate)
- Look at more regional solutions (watershed approach)
- Fort Worth will Greenprint the Lake Worth watershed
- Opportunities for carrots and sticks with regard to land conservation (e.g. conservation zones, carrot; watershed districts to require easements, stick)
- Integrated Stormwater Management (ISWM) is one of NCTCOG's best programs, but we need to also focus on quantity control
- Willing to piggyback on conservation easements
- Emphasize protection to prevent siltation; land use should be used in the policy position; Fort Worth is advocating preservation around Lake Worth and how nonprofits can participate
- Education is a major piece and there's an opportunity to involve homeowner associations
- The wastewater map displayed is a great resource and should be expanded to include total wastewater to each reservoir and the size of the reservoir
- Use science and water analyses to identify problem areas and focus attention there

- Concern about groundwater and gas wells
- Add land use to the policy position
- Education (celebrity spotlight) is important
- Education on where stormwater goes, etc.
- Educate upstream communities

Arlington/Benbrook/Joe Pool/Weatherford Lakes Watershed:

- New/old on-site septic systems still a problem, especially those close to shores
- What's the real impact of sanitary sewer overflows
- How do we come together and convince people that protecting water quality is important (drinking water may be used by those not in the watershed)
- A concern for private property rights and unincorporated areas
- Nutrient loadings on lakes and ways to address problems
- Permitting of package plants by the state
- Partnerships, but different expectations
- Conservation easements, need to explore strategies for a carrot and stick approach
- Struggling with post-construction requirement of the Phase II MS4 permit; how to work on a watershed basis further complicates things
- Adopted portions of iSWM and added other requirements to protect stream property owners
- Post-construction requirement of the Phase II MS4 permit is nebulous
- Watershed modeling, there's an opportunity for redevelopment to impact water quality
- It's difficult to get funding to make things happen
- Expand the Corridor Development Certificate process to areas other than along the Trinity River
- Need guidance for implementing the minimum control measures of stormwater permits on a watershed basis
- Sediment loading is the biggest concern in Lake Weatherford
- Public education and outreach is important, but we also need to educate governing bodies
- Master drainage plan for Joe Pool Lake and determining the best way to get others involved
- More education on what's occurring and issues in the watershed
- Consistency in communication is needed (e.g. manure management at horse farms vs. dog owners)
- Lower Colorado River Authority (LRCA) is active in enforcing water protection; enforcement is key for consistency across the watershed; in North Texas water districts could play this role
- Nutrient treatment and the concern for phosphorus discharges
- Regional detention
- Work on legislation to give counties authority and educate council members
- Counties need more land use authority
- Give water districts more responsibility with watershed protections
- Funding for projects (e.g. MS4 stormwater permit)
- Quantify water quality benefits
- Nitrogen and phosphorus for nutrient standards—how will that apply?
- Conservation and preservation of areas
- Sanitary sewer overflows are a problem
- Ways to slow down stormwater to keep nutrient issues down as well as sediment
- Private/public property issues that could encourage more on-site sewage (delay in Grand Prairie's sanitary sewer system due to a federal hold up on obtaining an easement)

Lake Ray Hubbard and Lavon Lake Watersheds:

- How development around Lake Ray Hubbard will affect the watershed
- Need a better handle on runoff from un-urbanized area in Lavon Lake watershed; lack of legal authority to manage the watershed; NCTCOG could help define legal authorities and work more with small cities and counties
- Protecting the 100-year floodplain is a priority in Rockwall
- How to effectively evaluate best management practices
- Invasive species (e.g. zebra mussels) are already having an impact in these watersheds
- Adoption of Digital Flood Insurance Rate Map (DFIRM) is important; updated all floodplain mapping, which has gone a long way in protecting riparian corridors
- Trying to effectively prevent erosion of creeks in Garland
- Plastics are a major problem in Garland, there needs to be a regional effort to prevent this
- Funding for more robust stormwater programs
- Land in the Lavon Lake watershed is predominately undeveloped, and there's a concern for future development in this watershed; the water supply and invasive species are also concerns
- Zebra mussels found in Lake Ray Hubbard on May 3, 2011
- Floatables in Ray Hubbard, especially around the Rowlett area
- Floatables
- Water supply and conservation
- Assist landowners to put in best management practices
- Financial lending needs to change; an acceptable tax break if the land is not agriculture is needed
- Regional approach to permitting, best management practices, even watershed permitting
- Coordinate to see water quality outside of the lake and conduct activities from that
- Invest in future generations, reach out to younger kids who then educate parents
- Retrofitting to benefit water quality
- Coordination earlier in the process (e.g. before National Environmental Policy Act, Environmental Impact Statements, etc.)
- Make Greenprint accessible to smaller communities
- Limited funding and staff in small communities; they need bite size steps; keep encouraging regional cooperation; letters to city managers is effective
- Requirements for developers to keep areas more natural, but there's a concern they'll go elsewhere to develop
- Managing the floodplain is important
- Training for staff is helpful
- Support large trail systems
- Expand Keep [city name] Beautiful efforts to entire watershed (e.g. Keep [watershed name] Beautiful)
- Better implementation, training, and enforcement on erosion/sediment controls
- Concern over the water supply when reservoirs fill up with sediments
- Programs are too fragmented (at NCTCOG and within cities); NCTCOG's committees don't always talk to each other
- Low impact development is important

Appendix B
Stakeholder Comments on Watershed Protection Organized by Meeting as Issues and/or Actions

	Issues	Actions
Lewisville Lake, Ray Roberts Lake, and Lake Grapevine Watersheds	(1) Growing feral hog population	
	(1) Lawn and landscape management and fertilizer use	(1) Education on proper lawn and landscape maintenance that discourage over-fertilization (e.g. through TV/media ads, using a recognizable figure—Howard Garrett; produce short videos for use on city web sites)
	(2) Funding to small MS4s to implement required programs (e.g. stormwater management programs)	NCTCOG to provide funding assistance
	(2) Limited watershed planning efforts and education	(1) Coordinate a regional approach to watershed management to include education and land conservation
	(1) Properly managing stormwater	(1) Continue and expand stormwater efforts coordinated under the Regional Stormwater Management Program
	(1) Lack of legal authority for watershed management	
	(1) Invasive species	(1) Coordinate on invasive species
	(1) Bringing people within the watershed together	
	(1) How the built environment affects stream morphology	
		(1) Develop a guide for floodplain management outlining a regional standard
	(1) Land protection strategies affecting land owner's bottom line	Land protection strategies must take land owner's bottom line into account
	(1) Nutrient standards and the impact on wastewater dischargers	
		Use simulation models to predict the water quality in local reservoirs (e.g. Lewisville Lake)
Lake Worth / Eagle Mountain Lake and Lake Bridgeport Watersheds	(1) Bringing in the rural interests in the watershed	Reach out more to rural communities
		(1) Use science in cooperative efforts

		(1) More widespread adoption of programs to protect water resources (e.g. integrated Stormwater Management, Corridor Development Certificate)
		(1) More watershed-based solutions to water quality problems
		(1) Use Greenprinting (e.g. in Lake Worth watershed) to help make decisions land conservation to protect water quality, recreation opportunities, etc.
		(1) Explore opportunities for carrots and sticks with regard to land conservation
	(1) Controlling water quantity	Incorporate the water quantity aspect into NCTCOG's integrated Stormwater Management program
		(1) Conservation easements to help reach other goals not related to water quality (e.g. to help buffer airports)
	(1) Siltation of lakes	Emphasize protection to prevent siltation
	(2) Land use impacts water quality	Advocate for preservation around lakes
		(4) Educate (e.g. about stormwater, to upstream communities) / involve groups (e.g. homeowner associations, celebrity spotlights) to protect water quality
		(1) Identify wastewater contributions to lakes (e.g. through maps)
		(1) Focus attention on problem areas (e.g. identify problem areas through science and water analyses)
	(1) Concern about groundwater and gas wells	
Arlington / Benbrook / Joe Pool / Weatherford Lakes Watershed	(1) Onsite septic systems, especially those close to the shores of lakes	
	(2) Sanitary sewer overflows (e.g. what is the real impact?)	
	(1) Communities may not use drinking water within their watershed and may not have an	

	interest in protecting it	
	(1) Private property rights	
	(1) Unincorporated areas	
	(1) How to address nutrient loadings in lakes	
	(1) Package plants	Limit permitting of package plants by the state
	(1) Different expectations in partnerships	
		(1) Explore opportunities for carrots and sticks with regard to land conservation
	(2) Complying with post-construction requirements of the stormwater permit	
		Conduct watershed modeling to identify areas where redevelopment could positively impact water quality
	(2) Funding (e.g. stormwater permit)	
		(1) Expand the Corridor Development Certificate process to areas other than along the Trinity River
		(1) Adopt NCTCOG's integrated Stormwater Management program
		(1) Implement minimum control measures of stormwater permits on a watershed basis
	(1) Sediment loading (e.g. in Lake Weatherford)	
		(2) Educate governing bodies (e.g. council members)
	(1) Involving stakeholders (e.g. in the master drainage plan for Joe Pool Lake)	
		(1) Education (e.g. on what is occurring and on issues in the watershed)
	(1) Inconsistent messages (e.g. manure management at horse farms vs. dog owners)	
	(1) Lack of enforcement to protect water quality across the watershed	(1) Give water districts more responsibility in protecting the watershed (e.g. enforcement)
	(1) Phosphorus discharges from wastewater treatment plants	Nutrient treatment requirements at wastewater treatment plants
		(1) Regional detention facilities

		(2) Counties need more land use authority (e.g. work on legislation)
		(1) Quantify water quality benefits
	(1) Dealing with nitrogen and phosphorus in the face of nutrient standards	
		(1) Conserve and preserve areas
	(1) Controlling stormwater runoff to reduce nutrient and sediment loadings	
	(1) Permit delays in wastewater treatment that could encourage onsite sewage	
Lake Ray Hubbard and Lavon Lake Watersheds	(2) Impact of development on the watershed (e.g. development around Lake Ray Hubbard, in Lavon Lake watershed)	
	(1) Lack of legal authority to manage the watershed (e.g. especially in un-urbanized areas)	NCTCOG could help define legal authorities and work more with small cities and counties
		(1) Protect the 100-year floodplain
	(1) How to effectively evaluate best management practices	
	(3) Invasive species (e.g. zebra mussels, found in Lake Ray Hubbard)	
	(3) Floatables (e.g. in Lake Ray Hubbard, plastics)	
	(1) Protecting riparian corridors	Floodplain mapping (e.g. adoption of Digital Flood Insurance Rate Map)
	(1) Erosion (e.g. creeks in Garland)	
	(1) Funding (e.g. for more robust stormwater programs)	
	(2) Water supply	Water conservation
		(1) Assist landowners to implement best management practices
		(1) Financial lending needs to change (e.g. need acceptable tax break for non-agricultural land)
		(1) Regional or watershed approach to stormwater permitting
		(1) Focus activities on issues
		(1) Educate (e.g. younger kids)
		(1) Retrofit areas to benefit water quality
		(1) Coordinate planning efforts earlier in the process to avoid

		sensitive areas (e.g. in transportation process)
		(1) Greenprint other areas
(1) Limited funding and staff in small communities		Keep encouraging regional cooperation
		(1) Require developers to keep more areas natural
		(1) Manage the floodplain
		(1) Train staff
		(1) Support large trail systems
		(1) Expand Keep [city name] Beautiful efforts to entire watershed (e.g. Keep [watershed name] Beautiful)
		(1) Better implementation, training, and enforcement on erosion / sediment controls
(1) Programs are too fragmented (e.g. at NCTCOG and within cities)		
		(1) Implement low impact development strategies
(1) Sedimentation		

The numbers in parentheses are the number of related comments received. Those actions without a number were part of the same thought described in the cell to its left.

Appendix C

Summarized Lists of Issues and Actions

Water supply reservoir protection issues (the number of comments are in parentheses):

- (6) Funding (e.g. for more robust stormwater programs; limited in smaller communities)
- (4) Invasive species (e.g. zebra mussels, found in Lake Ray Hubbard)
- (4) Nutrients (e.g. loadings to lake, nutrient standards, impact on wastewater dischargers)
- (4) Involving stakeholders/forming partnerships (e.g. within the watershed, rural interests, in city master planning efforts, different expectations)
- (4) Controlling/managing stormwater (e.g. runoff quantity)/complying with stormwater requirements (e.g. post-construction minimum control measure)
- (4) Impact of land use/management on water quality (e.g. unincorporated areas; lawn and landscape management)
- (3) Lack of enforcement to manage the watershed (e.g. especially in un-urbanized areas)
- (3) Sediment loading/siltation (e.g. in Lake Weatherford)
- (3) Impact of development on the watershed (e.g. stream morphology, around Lake Ray Hubbard, in Lavon Lake watershed)
- (3) Floatables (e.g. in Lake Ray Hubbard, plastics)
- (3) Onsite septic systems/package plants (e.g. due to wastewater treatment permit delays)
- (2) Water supply
- (2) Sanitary sewer overflows (e.g. what's the real impact)
- (2) Private property rights (e.g. land protection strategies affecting land owner's bottom line)
- (2) Programs are too fragmented/messages are inconsistent (e.g. at NCTCOG and within cities, on manure management)
- (1) Impact of gas wells on groundwater
- (1) Lack of vested interest (e.g. communities may not use drinking water within their watershed)
- (1) Erosion (e.g. creeks in Garland)
- (1) Growing feral hog population
- (1) How to effectively evaluate best management practices
- (1) Protecting riparian corridors
- (1) Limited watershed planning and education

Potential actions for protecting water supply reservoirs (number of comments are in parentheses):

- (11) Conserve/protect/avoid areas (e.g. work with landowners to implement best management practices, install conservation easements, explore opportunities for carrots and sticks with regard to land conservation, around lakes, floodplain, through large trail systems, through floodplain mapping, to prevent siltation)
- (10) Educate (e.g. younger kids, on what is occurring and on issues in the watershed, on proper lawn and landscape maintenance, train staff, governing bodies, about stormwater, involve celebrities and homeowner associations in the process)
- (5) Conduct watershed/reservoir modeling/Greenprinting (e.g. to predict water quality, to identify areas where redevelopment could positively impact water quality, to make land conservation decisions, use science in efforts)
- (5) More widespread adoption/expansion of programs (e.g. integrated Stormwater Management, Corridor Development Certificate, develop a guide for floodplain management outlining a regional standard, include quantity aspect in the integrated Stormwater Management Program)

- (5) Regional/watershed approach to stormwater management (e.g. continue and expand stormwater efforts coordinated under the Regional Stormwater Management Program, regional/watershed-based permitting, implement stormwater permit minimum control measures on a watershed basis, regional detention facilities, focus on proper use of erosion/sediment controls)
- (4) Make development process more sensitive (e.g. require developers to keep more areas natural, avoid sensitive areas when developing, implement low impact development strategies, retrofit areas)
- (4) Watershed-based solutions to water quality issues (e.g. focus activities on issues and problem areas, identify water loadings)
- (3) Funding/Financial support (e.g. tax breaks for non-agricultural lands, NCTCOG to provide funding assistance to small communities to help implement programs, land conservation strategies need to account for landowner's bottom line)
- (2) Reach out more to small cities/rural communities (e.g. continue regional cooperative efforts)
- (2) Regional approach to watershed management (e.g. to include education and land conservation, "keep [name of watershed] beautiful" efforts)
- (2) Watershed enforcement/responsibility (e.g. water districts, NCTCOG to help define legal authority)
- (1) Conserve water
- (1) Coordinate on invasive species
- (1) Counties need more land use authority (e.g. work on legislation)
- (1) Limit onsite sewage/package plants (e.g. limit permitting)
- (1) Quantify water quality benefits
- (1) Require more stringent nutrient treatment at wastewater treatment plants

Appendix D
Relating Actions to the 1986 Policy Position on the Protection of Water Supply Reservoirs

NCTCOG's 1986 Policy Position on the Protection of Water Supply Reservoirs:

1. Reservoir water quality must be protected.
2. Citizens must be convinced of the vital need, and local governments empowered, to protect lake water quality.
3. Prevention of water pollution must be emphasized, since prevention is much more cost-effective than pollution correction of water treatment.
4. Regional agencies should be designated by the state to manage wastewater treatment in reservoir watersheds.
5. Alternative wastewater treatment processes providing for the conservation and reclamation of water should be considered.
6. Wastewater treatment levels must be sufficiently stringent to protect lake quality, including nutrient and toxic controls where necessary.
7. Interjurisdictional watershed management plans should be prepared.
8. Illegal dumping and unpermitted landfill operations must be stopped.
9. Comprehensive stormwater management programs that include control of significant nonpoint sources of pollution should be developed by cities and counties in reservoir watersheds.
10. Septic tanks should be used only in rural areas under strict local government regulations.
11. A coordinated monitoring, analysis, and reporting system should be implemented for all reservoirs and their watersheds.

NCTCOG's 1986 Policy Position on the Protection of Water Supply Reservoirs and how potential actions relate (the policies are numbered and the potential actions are lettered):

1. Reservoir water quality must be protected.
 - a. Regional approach to watershed management
2. Citizens must be convinced of the vital need, and local governments empowered, to protect lake water quality.
 - a. Educate
 - b. Quantify water quality benefits
 - c. Reach out more to small cities/rural communities
 - d. More widespread adoption/expansion of programs
3. Prevention of water pollution must be emphasized, since prevention is much more cost-effective than pollution correction of water treatment.
4. Regional agencies should be designated by the state to manage wastewater treatment in reservoir watersheds.
5. Alternative wastewater treatment processes providing for the conservation and reclamation of water should be considered.
6. Wastewater treatment levels must be sufficiently stringent to protect lake quality, including nutrient and toxic controls where necessary.
 - a. Require more stringent nutrient treatment at wastewater treatment plants
7. Interjurisdictional watershed management plans should be prepared.
 - a. Conduct watershed/reservoir modeling/Greenprinting
 - b. Watershed-based solutions to water quality issues
8. Illegal dumping and unpermitted landfill operations must be stopped.
9. Comprehensive stormwater management programs that include control of significant nonpoint sources of pollution should be developed by cities and counties in reservoir watersheds.

- a. Regional/watershed approach to stormwater management
- 10. Septic tanks should be used only in rural areas under strict local government regulations.
 - a. Limit onsite sewage/package plants
- 11. A coordinated monitoring, analysis, and reporting system should be implemented for all reservoirs and their watersheds.

New policies based on potential actions not addressed in the 1986 Policy Position (the new policies are numbered and the potential actions are lettered):

- 1. Strategies to reduce the impact that development and certain land uses can have on reservoir water quality should be assessed and implemented.
 - a. Make development process more sensitive
 - b. Counties need more land use authority
- 2. Invasive species must be addressed to prevent the spread and introduction to local reservoirs.
 - a. Coordinate on invasive species
- 3. Establishment of legal authorities to protect regional watersheds should be considered.
 - a. Watershed enforcement/responsibility
- 4. Options to fund or financially incentivize local programs to protect reservoir water quality should be explored.
 - a. Funding/Financial support
- 5. Indoor and outdoor water must be conserved to protect regional water supplies.
 - a. Conserve water
- 6. Areas that benefit reservoir water quality in their natural state should be conserved.
 - a. Conserve/protect/avoid areas

Proposed revised Policy Position (additions are underlined and deletions are marked out):

- 1. Reservoir water quality must be protected on a watershed-basis.
- 2. Citizens must be convinced of the vital need, and local governments empowered, to protect lake water quality.
- 3. Prevention of water pollution must be emphasized, since prevention is much more cost-effective than pollution correction of water treatment.
- 4. Regional agencies should be designated by the state to manage wastewater treatment in reservoir watersheds.
- 5. Alternative wastewater treatment processes providing for the conservation and reclamation of water should be considered.
- 6. Wastewater treatment levels must be sufficiently stringent to protect lake quality, including nutrient and toxic controls where necessary.
- 7- The Source Water Protection G300 Standard adopted by the American Water Works Association should be pursued on a watershed basis. ~~Interjurisdictional watershed management plans should be prepared.~~
- 8. Illegal dumping and unpermitted landfill operations must be stopped.
- 9. Comprehensive stormwater management programs that include control of significant nonpoint sources of pollution must continue ~~should be developed by cities and counties in reservoir watersheds.~~
- 10. Septic tanks should be used only in rural areas under strict local government regulations.
- 11. A coordinated monitoring, analysis, and reporting system should be implemented for all reservoirs and their watersheds.
- 12. Strategies to reduce the impact that development and certain land uses can have on reservoir water quality should be assessed and implemented.

13. Invasive species must be addressed to prevent the spread and introduction to local reservoirs.
14. Establishment of legal authorities to protect regional watersheds should be considered.
15. Options to fund or financially incentivize local programs to protect reservoir water quality should be explored.
16. Indoor and outdoor water must be conserved to protect regional water supplies.
17. Areas in their natural state that benefit reservoir water quality should be conserved.