

To: JCC Comprehensive Plan Steering Committee

From: JCC Citizens' Coalition (J4C)

The J4C respectfully submits the attached documents for your consideration in developing the Environment section of the 2008 Comprehensive Plan;

- **Environment Strategies:** A brief summary of strategies which are suggested for inclusion in the plan, under various appropriate Goals. (Some of these are already included).
- **Objective Standards for Comp Plan Actions;** Suggested standards for evaluating progress towards goals
- **Suggested Quantitative Measures for Environment Actions:** Some suggestions for constructing the plan with a view towards monitoring progress and measuring success towards achieving goals.
- **Recommended Additions to Environmental G,S,A:** Goals, Strategies and Actions that relate to some items suggested by citizens during the CPT process, that were not reflected in the final product.

T. Elkins (J4C)
24 Nov, 2008

ENVIRONMENT STRATEGIES

- Maintain an accurate, current status of the area of impervious cover in each of the County's sub-watersheds. Enforce the limits established. [The definition of impervious cover should include turf grass, with an appropriate permeability derating based on scientific data].
- In collaboration with VIMS, establish a long term water level monitoring program and support research to permit a capability for predicting flooding associated with storms.
- Develop a long range strategy for land use which anticipates future flood/storm surge modeling associated with sea level rise
 - Modify zoning ordinances in low lying areas
 - Do not subsidize development in these areas
 - Plan for modification of drainage & sewerage systems in areas subject to future inundation
- Maintain or continue stream monitoring and restoration programs
 - Identify action relating to use of stream monitoring data
- Review the 10 point program for any possible changes that would facilitate developer applications and at the same time provide additional protection to the county's watersheds
- Assist neighborhoods in flood control measures
- Adopt principles of Better Site Design (esp. cluster development)
- Require alternatives (e.g., rain gardens; permeable pavement) to BMP's be examined; revise BMP manual to reflect current research.
- Protect sensitive land by a) buying it; b) PDR; c) TDR
- Identify intermittent streams in watersheds
- Prohibit clear cutting; maintain original soils and vegetation cover to maximum extent possible
- Mandate buffers on intermittent streams

OBJECTIVE STANDARDS FOR COMP PLAN ACTIONS

Objective standards are desirable and necessary in order to allow a determination of success or failure in executing actions. Three generic types can be applied:

- 1) Numerical (quantifiable); based on physical measurement of some type.
e.g., reduce fecal coliform bacteria count in secondary streams by X percent per year, averaged over 10 day periods
- 2) Binary (yes/no); criterion is whether or not a specific event or action occurs within a specified interval.
e.g., one report is issued on a particular topic per year; or, at least one training session/workshop is conducted per year.
- 3) Expert judgment; in rare cases where non-quantifiable entities are involved, such as those involving negotiation, the judgment of a qualified expert is acceptable.
e.g., vegetation clearing or land disturbance under Chesapeake Bay ordinance §23-9, which contains qualitative language (“... greatest extent possible...”) and involves negotiation between County and property owner.

T. Elkins (J4C)
24 Nov, 2008

SUGGESTED QUANTITATIVE MEASURES FOR ENVIRONMENT ACTIONS

COMMENT: The Actions are much too vague, and represent aspirations rather than actionable items. There needs to be some measure of success associated with many of the actions, although some can perhaps remain subjective. Those actions that do not fall into these categories should be deleted, as they serve no practical purpose. We need to be able to measure progress as time advances. Following illustrates some suggestions – not exhaustive.

- 1.1.1 Percent of goals implemented
- 1.1.2 Publish a report within X months/years
- 1.1.3 Achieve title to X acres per year
- 1.1.4 Identify corridors and assess feasibility – report within X months/years

- 2.1.1 Determine realistic extents; identify no more than X acres of wetland lost per year; similar measures for flood plain; Y linear yards of shoreline; perennial streams; etc.
- 2.1.2
 - a. How many demonstration projects per year
 - b. Identify means of promotion; e.g., X public forums/workshops per year
 - c. Identify types of assistance contemplated (use “as needed”)
 - d. Professional judgment; use “as needed”
 - e. No more than X acres of wetlands disturbed per year
 - f. No more than X acres of highly erodible soils disturbed per year
 - g. No more than X acres of highly permeable soils disturbed per year
 - h. No more than X acres of increased impervious cover per year
 - i. Reports; collaboration meetings; workshops; training sessions (mode of encouragement to be specified)
- 2.1.3 All projects to be so certified
- 2.1.4 Prosecute all violations
- 2.1.5 Binary measure

- 2.2.1 Publish report; in what time frame?
- 2.2.2 Percentage of development projects incorporating approved methods
- 2.2.3 Binary action on individual case by case basis
- 2.2.4 Publish report identifying entities and standards; quantify enforcement (binary)

- 3.1.1 Publish report within X months/years
- 3.1.2 All categories require enforcement with binary achievement
- 3.1.3 How is this incentivized? e.g., workshops/training sessions per year
- 3.1.4 Binary
- 3.1.5 Study report issued within X months/years

- 4.1.1 Number of workshops/training sessions/demonstrations per year

- 4.1.2 At least one publicity event per year in each category

- 5.1.1 Binary
- 5.1.2 Number of training sessions held each year

- 5.2.1 Number of workshops/training sessions/demonstrations per year
- 5.2.2 Analyze stream monitoring data – publish at least one report per year

- 6.1.1 Publish at least one document/revision per year

- 6.2.1 How is publicity accomplished; metric must conform to method(s) chosen

- 7.1.1 Publish the plan by [date]
- 7.1.2 Publish a plan by [date]
- 7.1.3 Establish a process and develop a plan by [date]

- 8.1.1 Publish baseline inventory by [date]
- 8.1.2 Publish the Program by [date]; include quantified savings [e.g., X% reduction]
- 8.1.3 Publish incentives and regulatory measures by [date]
- 8.1.4 Publish the Green Building Policy and guidelines by [date]
- 8.1.5 Provide recommended ordinance amendments by [date]
- 8.1.6 Provide dates [e.g., no later than month/year] for a, b, c
- 8.1.7 Establish replacement schedule and policy statement by [date]

T. Elkins (J4C)
Nov 24, 2008

RECOMMENDED ADDITIONS TO ENVIRONMENTAL G,S,A

Goal: Mitigate the impact of stormwater flooding in low lying areas of the County

Strategy: Perform a County-wide analysis of the sources and channels of flood water and identify effective means of remedying them.

Actions: i) After the fact: Examples - Cleaning and deepening drainage ditches and culverts, building dikes, modifying road crossings over streams, providing adequate pumping stations and retention ponds, among other remedies.

ii) Planning: Analyzing flooding impact from by-right development; requiring cumulative impact of impervious cover development in watersheds; requiring development in watersheds to include flood abatement plans.

Incorporating flood control in all future budget planning.

Goal: Plan for long term effects of Sea Level Rise on flooding in low lying areas of the County.

Strategy: Anticipate future storm surge flooding

Actions: Establish a long term water level monitoring program, for example the one operated by VIMS at Jamestown pier. Support research to permit a capability for predicting flooding associated with storm surges.

Develop a long range strategy for land use which anticipates future rise in seal level which results in inundation and more intense storm surges.

Do not subsidize development in flood prone areas (e.g., by insurance).

Plan for modification of drainage and sewerage systems in areas subject to inundation.

GOAL #5

There should be quantitative standards established for water quality in streams and rivers. Stream quality monitoring is performed; what standards are set? What analysis is performed on collected data? What actions are taken when standards are not met?

Examples:

- fecal coliform bacteria should not exceed X ppm (averaged over 10 days)
- Dissolved oxygen should not exceed Y ppm
- TDML (x) should not be exceeded

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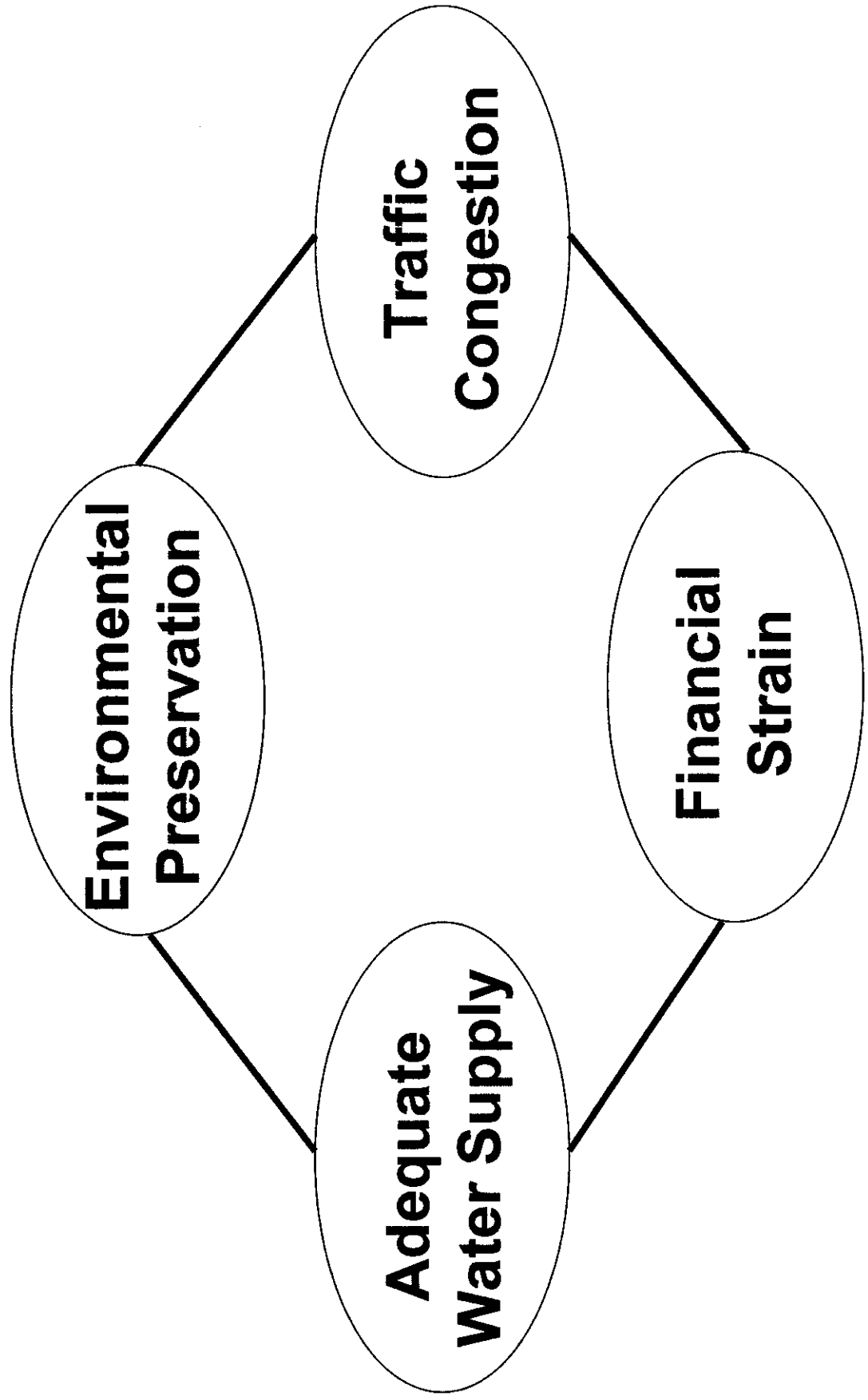


Environment

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J4C

Components of “Cumulative Impact”



Environmental Considerations

- Development is diminishing water quality
- County stormwater response needs improvement
- Chesapeake Bay Preservation is inadequate
- Forests & wetlands becoming fragmented
- Monitor stream quality & restore as necessary
- Modernize stormwater retention ponds
- Expand buffers around headwater streams
- Plan for inevitable sea level rise
- Prohibit clear cutting of trees during development

Comments on Goals/Strategies/Actions

- Actions are much too vague (aspirations!)
- Actions need to be “quantified”
 - Need to measure progress as time advances
 - e.g., X miles/year of eroded stream remedied
 - e.g., fecal coliform reduced by X percent/year
 - e.g., at least one training session/workshop is conducted per year.
- Suggested objective standards submitted
- Stormwater flooding inadequately addressed
- **No** discussion of impact of rising sea level
 - Suggested G,S,A submitted