

Appendix E
Public Comments

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1.0 INTRODUCTION

The Draft SEA was made available for public comment during the period of November 25, 2003 to December 12, 2003, inclusive. Additionally, to further solicit public comments on the Draft SEA, FEMA held a workshop on December 4, 2003. FEMA received some comments from regulatory agencies as well as individuals. Section 2.0 of this Appendix presents a list of the individuals and agencies that submitted comments on the Draft SEA. Section 3.0 of this Appendix includes summaries of comments received on the Draft SEA and responses to those comments. Any comments received after December 12, 2003, may be considered; however, those comments are not included in Appendix E. Copies of all correspondence received are part of the public record for this project, and are available upon request.

2.0 LIST OF COMMENTERS

2.1 Regulatory Agencies

<u>Agency</u>	<u>Commenter</u>	<u>Title</u>	<u>ID</u>
National Maine Fisheries Service	Miles M. Croom	Assistant Regional Administrator	R1
Florida Keys Natl' Marine Sanctuary	Brian D. Keller, Ph.D	Science Coordinator	R2

2.2 Groups and Individuals

<u>Commenter</u>	<u>Affiliation</u>	<u>Title</u>	<u>ID</u>
Bacchus, Ph.D	Sydney	Applied Environmental Services	G1
Mack	Gerald		G2
West	Eric		G3
Gordon	Greg	Surfrider Foundation Sebastian Inlet Chapter	G4
Warnke	Tom	Surfrider Foundation Palm Beach Co. Chapter	G5

2.3 Workshop Participants

About 20 participants attended the Bay Point and Saddlebunch Keys public meeting. This section lists the substance of the comments and questions heard. These were addressed and discussed during the public meeting, the substance of the response is included here. The comments and responses are coded W1-21.

3.0 COMMENTS AND RESPONSES

3.1 Regulatory Agencies

R1 National Marine Fisheries Service (19-Dec-03)

Comment Summary R1-1: The Service concurs with FEMA’s determination that the alternatives would benefit Essential Fish Habitat and supports Keys-wide wastewater treatment improvements.

Response R1-1: *Comment reiterates information presented in the draft SEA Section 3.3.3. (Biological Resources).*

R2 Florida Keys National Marine Sanctuary (05-Jan-04)

Comment Summary R2-1: The Sanctuary supports the Alternative 2 site selection. This alternative is also less vulnerable to accidental spills of untreated sewage, because of the short transmission system. The Sanctuary prefers the use of ultraviolet radiation for effluent disinfection because chlorine use can create endocrine disrupters and other deleterious organic compounds in the treated effluent. The Sanctuary also recommends “before and after, control and impact” water quality monitoring near the service area. This information could complement other monitoring efforts and “add credence to the conjectures about cumulative water quality improvements.”

Response R2-1: *PEA Section 3.3.2.1 (Biological Resources – Alternative 1) addresses chlorine use effects on biological resources. SEA Section 6 (Mitigation Measures and Permits) has been revised to recommend that the FKAA select ultraviolet radiation as the disinfection effluent method for various reasons, including safety, water quality, and biological resources. SEA Section 7 (Conclusions) recommends that the FKAA initiate a nearshore water quality monitoring program for this project.*

3.2 Groups and Individuals

G1 Sydney Bacchus, Ph.D. (12-Dec-03)

Comment Summary G1-1 (#D8): The draft SEA evaluations focus on nitrogen and phosphorous contamination and don't address adverse direct, indirect, and cumulative effects on water chemistry from effluent well injection; including "the addition of major ions, trace metals, organic carbon, substances used in diagnostic medical procedures, surfactants, pharmaceuticals, hormones or pesticides."

Response G1-1: *Such complex matters require more detailed answers. The draft SEA focuses on nitrogen and phosphorous because, as stated in Section 1-4 (Purpose and Need), the action's purpose is to reduce nutrient loading and biological contamination in Keys' nearshore waters. The wastewater treatment system alternatives have design capacities to serve only the present service area populations, would not directly promote additional service area population growth, and therefore, are not expected to increase the net discharge of any substances that are or may be discharged into and/or from existing on-site wastewater treatment systems (see the PEA and SEA Introduction, Alternatives Evaluated, Water Quality, and Hazardous Materials and Wastes sections). Furthermore, the proposed, more advanced wastewater treatment would most likely reduce the discharge of some of these substances directly into the groundwater in the "karst" aquifer system, and indirectly into nearshore and offshore waters (Manahan 1991, Watson and Burnett 1995, Keller 1996, Dillon et al 2001). The PEA and SEA Water Quality and Hazardous Materials and Wastes Sections address potential pollutants in wastewater influent, from wastewater treatment processes, and in wastewater treatment effluent; their likely environmental effects (direct, indirect, and/or cumulative); and FDEP required hazardous substance monitoring stations and regulatory actions, in various degrees as appropriate for Environmental Assessments. However, the corresponding data collection, analyses, and decision-making were much more detailed and comprehensive in all cases. The substances that are or may be present in sufficient quantity and would or may have noteworthy environmental effects were addressed more specifically in the PEA and SEA. Finally, as discussed in various PEA and SEA sections, regulated substances would be monitored by FDEP, and subject to State and Federal regulatory agency requirements and actions, as appropriate under the current State and Federal Public Laws and implementing regulations at the time.*

Comment Summary G1-2 (#D9-10): The draft SEA evaluations do not address much of the scientific literature's conclusion that well injected fluids rapidly resurface in surface waters near coral reefs because of the Keys' "highly permeable carbonate aquifer," and the impacts from this fluid's contaminants and hazardous substances on the FKNMS are not addressed.

Response G1-2: *PEA Sections 3.1.3 (Geology) and 3.2.2 (Groundwater) clearly discuss the hydraulic communication between the Biscayne Aquifer's Upper Water Bearing Zone and Keys' nearshore waters, and cite key, applicable primary peer-reviewed scientific literature. These primary works, and related secondary works, cite and are consistent with the larger body of primary peer-reviewed scientific literature. PEA Sections 3.3.1.2.2 (Coral Reefs) and 3.3.2 (Environmental Consequences), draft SEA Section 3.3 (Biological Resources – Environmental Consequences), and applicable responses from environmental organizations and State and other Federal resource agencies; describe how current wastewater treatment practices (and non-wastewater influences) affect various aquatic resources in the FKNMS and how those effects would change under the action alternatives. SEA Section 3.3.2.6 (Biological Environmental Consequences - Alternative 2) has been revised to further discuss other substances' effects on FKNMS resources.*

Comment Summary G1-3 (#D11, 147, 155): The SEA evaluations "infer, imply, and state that the proposed alternatives" will reduce "nutrient loading in surrounding surface waters," thereby improving water quality. The peer-reviewed body of science doesn't support this finding. The concept of nitrogen and phosphorous in the septic tanks' and cesspits' freshwater lens being absorbed by nearby "lush stands of native tropical trees" isn't recognized. There's no evidence to support septic tank and cesspit nutrients

causing eutrophication on reef system, the body of scientific knowledge indicates aquifer-injected effluent is the cause.

Response G1-3: *PEA Sections 1.4 (Sources of Keys Water Quality Degradation), 1.5 (Focusing on Wastewater Management in the Florida Keys), 1.9 (Purpose and Need) and 3.2.3 (Inland, Nearshore, and Offshore Waters), and Appendix K (Comment and Responses on the Draft PEA) comment response G1-2; address nutrient loading, reef eutrophication, and water quality improvements, including the general consensus from the scientific community. The body of science largely supports the applicable PEA and SEA findings. Many of the applicable primary peer-reviewed works are incorporated into the primary and secondary works that are cited in the PEA and SEA. As described in PEA Section 1.5, Keys' viral tracer studies show the effluent discharged into cesspits, septic systems, and shallow wells rapidly resurfaces in nearshore waters. Many of the same groundwater transport factors apply to associated nutrient discharges. Consequently, even if the service area had extant tropical vegetation, there would be little, if any, net nutrient uptake. Various common biogeochemical cycle processes, i.e., herbivory and excretion, leaf senescence, injury and mortality, decay and decomposition, leaching and transport, aquifer water-matrix interface element (e.g., Phosphorus) saturation, and other processes would eventually return most vegetation sequestered nutrients and pollutants to the groundwater, which in turn would eventually discharge into nearshore and offshore waters.*

Comment Summary G1-4 (#D12): Even if wastewater is treated to AWT standards, at least, the remaining nutrient levels ultimately discharging to surface waters would still be fatal to corals. These nutrient levels can also trigger micro and macro-algal blooms which cause marine life mortality and public health risks.

Response G1-4: *Draft SEA Section 3.3.2.6 (Alternative 2 – New WWTP) discusses that even once Florida Statutory Treatment Standards are met, ambient marine water nutrient levels would still be higher than natural levels. Although there is little available research on BAT or AWT affects on corals, the resultant nutrient levels are not expected to be fatal to coral and are expected to reduce algal blooms. It should also be noted there are many other factors, beyond wastewater treatment practices, affecting reef health. The discharge nutrient levels would be within legal limits, have been approved by applicable State and Federal resources agencies, have been openly and/or silently supported by various interested environmental organizations, and these nutrient levels would be further reduced around the corals by dilution and transport. The alternatives, with all other variables held constant, would reduce nutrient levels around the corals, and the algal bloom frequency and intensity, in nearshore waters, and to a lesser extent, in offshore waters.*

Comment Summary G1-5 (#D13): The proposed sewage treatment process causes “a new and environmentally hazardous compound – nonylphenol – from the partial breakdown of non-hazardous compounds in sewage effluent. This conversion does not occur in septic tanks and cesspits.”

Response G1-5: *This previously submitted comment was addressed in PEA Section 3.8 (Hazardous Materials and Wastes) and Appendix K (Comment on the Draft PEA and Responses) comment response G1-15. The FKAA would be required to comply with FDEP wastewater treatment plant permits, including any nonylphenol-specific monitoring and mitigation requirements, as applicable.*

Comment Summary G1-6 (#E14-15, I18-19, I49): The alternatives' site construction would require extensive impervious surface materials use. The SEA doesn't indicate the source of raw materials nor do the evaluations consider significant adverse effects to the raw material source sites, such as environmental consequences from dredging aquifer matrix. Groundwater withdrawals and aquifer matrix mining cause permanent wetland loss.

Response G1-6: *Alternatives' site construction would not require “extensive” use of impervious surface materials because they are relatively small facilities. The source of construction raw materials would be those which are permitted, cost effective, and readily available in the Keys' area. The environmental*

consequences to the raw material source sites is not discussed because the quantities needed for alternative actions are considered negligible, the alternative actions are not directly causing new or use of extraction sites, and the materials would be obtained only from properly permitted extraction operations, in accordance with applicable public laws and State and Federal resource agencies. For these and other reason, discussing raw materials and the source sites is considered beyond the scope of the SEA.

Comment Summary G1-7 (#E16-17, I18-19, I56): The alternatives perpetuate potable water use to transport human excrement. The groundwater mined for Keys' wastewater use has caused "significant harm to the human environment," including the Everglades. Groundwater withdrawals and aquifer matrix mining cause permanent wetland loss and adverse coastal zone affects. These adverse impacts can not be mitigated.

Response G1-7: *The alternative actions would continue existing use of potable water to transport human wastes. Because the alternatives have design capacity to serve only the present service area populations, they would not increase this potable water use. Therefore, the alternatives would not change groundwater withdrawals, i.e., any groundwater withdrawal changes would be attributable to other factors. The U.S. EPA, FDEP and SFWMD have jurisdiction over groundwater withdrawals, through well permitting and monitoring, and regarding the related consequences to wetlands and coastal zone, through requiring adverse effect mitigation measures as applicable. For these and other reasons, groundwater withdrawals and the source sites are considered beyond the scope of the SEA*

Comment Summary G1-8 (#F20-21): The draft SEA doesn't consider cumulative effects, such as those from combining the FEMA funded injection wells with the Keys' 1,000 existing shallow wells and deep wells from nearby counties.

Response G1-8: *The cumulative effects of the existing wells are discussed in PEA Sections 1.4 (Sources of Keys Water Quality Degradation) and 1.5 (Focusing on Wastewater Management in the Florida Keys). The cumulative effects of alternative actions' wells and MCSWMP and Monroe County Stormwater Master Plan implementation are discussed in PEA Section 4.2.2 (Water Resources and Water Quality) and 4.2.3 (Biological Resources). These PEA Sections are cited in the SEA. Deep wells and the consequences of their use are not discussed because they are not part of the alternative actions.*

Comment Summary G1-9 (#F22): The draft SEA doesn't sufficiently identify listed species or evaluate adverse direct, indirect, and cumulative effects on them.

Response G1-9: *SEA Section 3.3.3 (Special Status Species), and the USFWS and NMFS ESA consultation letters and FFWCC coordination letter in Appendix B identify all effected listed species and alternative actions' effects on the species and their critical habitats. USFWS and NMFS have concurred with FEMA's ESA findings. The FFWCC did not provide any comments.*

Comment Summary G1-10 (#F23-30): The draft SEA only considers "highly technical and costly engineered alternatives." There are "numerous reasonable and practicable functional alternatives," which could minimize and not exacerbate environmental problems (as noted in other comments) caused by engineered sewage treatment systems. Dry flush and foam flush toilets are such options, which have no fluid discharge to ground or surface waters, and can be installed for residential or commercial use (examples provided). These emit no sewage odor, unlike Keys' sewage treatment facilities. FEMA could use available Unmet Need funding to provide homeowners grants to replace their existing system with composting toilettes. Grants could also fund "greywater gardens" for non-sewage wastewater. "These alternatives would save the tax-payer hundreds of thousands of dollars," and immediately improve water quality and other previously noted adverse environmental impacts.

Response G1-10: *Applicable Federal Public Laws and Congressionally-mandated regulations for FEMA to implement these laws state that only "Project Applicants" may select proposed project alternatives.*

These laws and regulations require FEMA to determine the project's program eligibility and statutory compliance, and to provide associated guidance and technical assistance for the Applicants, but they do not allow FEMA to select project alternatives. FEMA must fund an eligible, State-approved project if the applicable grant funds are available, and if the proposed project meets all applicable eligibility and compliance requirements, including environmental. As indicated in the PEA and SEA, a wider range project alternatives were considered, including such toilets. The Applicant determined that these other alternatives were less feasible for various reasons, and therefore, were neither selected nor discussed further in the PEA and SEA. Such decision-making can be very complex, as it was for this project, with various degrees of evaluation of a wide range of relevant short- and long-term, direct and indirect factors, including, but not limited to: the costs and benefits of construction, operation, monitoring, and maintenance; public opinion, private property owners' will and rights; disaster hazards, facility post-disaster repairs/replacements, public health and safety hazards, post-disaster clean-up costs; sales, income, revenues, outlays, quality of life; and numerous individual and cumulative environmental effects; among many other factors. PEA Section 2.2 and Appendix K (Comments on the Draft PEA and Responses) comment response G1-4 address Monroe County's alternatives development process and NEPA requirements for alternatives consideration. For an EA only a reasonable range of alternatives must be considered and at least one viable action alternative to the proposed action. PEA and SEA alternatives consideration are consistent with CEQ guidelines.

Comment Summary G1-11 (#G31-34): The draft SEA doesn't consider alternatives' adverse economic effects. The costs of converting from a septic tank or cesspit to the SEA alternatives is \$10,000 to \$15,000 per residence. The unit costs of Clivus Multrum composting toilet are \$2,500 to \$4,000 for seasonal use and \$4,000 to \$5,500 for year-round use. Stand-alone units to replace existing flush toilets are available for about \$1,500 and don't require significant structural retrofitting. Accordingly, the SEA alternatives' costs to service recipients could range from twice to 10 times more than a waterless option. Service recipients would use less potable water thereby saving on their monthly water bill. The cost to tax-payers to replace 320 existing on-site septic systems in the Bay Point Service Area, with the stand-alone unit (\$1,500) would be about \$480,000; compared to \$5 million for the proposed alternative's hook-up fees.

Response G1-11: *PEA Sections 3.6.3 (Local Fees and Taxes) and 3.6.3.2 (Environmental Consequences) provide the framework for evaluating economic affects and draft SEA Section 3.6.3 (Local Fees and Taxes) discusses economic affects of the alternative actions. Over the lifespan of the proposed project, depending upon the details in any service areas, other alternatives may be less expensive in some cases and more expensive in others. Many other costs are also evaluated, as indicated in Response G1-10 above. Although it may be in a community's best interest, NEPA does not require selecting the alternative with the least adverse effects (including economic).*

Comment Summary G1-12 (#H35-43): Public comments were not included in the draft SEA, only agency comments appeared to be included. Not including public comments in a draft SEA appendix prevents others from reviewing those comments before final alternative determination. "There is wide-spread and overwhelming dissent" from Keys residents and visitors against the draft SEA alternatives. Agency comments were also critical of draft SEA alternatives [various excerpts from FDEPs July 10, 2003 letter in Appendix B included in comment]. Insufficient information was provided to agencies to evaluate alternatives' adverse impacts to the coastal zone. The various agency concerns are valid and emphasized with these comments.

Response G1-12: *Other than initial agency coordination comments, no public comments were received in response to FEMA's Notice of Intent (NOI) to prepare an SEA for the Bay Point and Saddlebunch Keys Wastewater Project. However, public comments were previously solicited to help scope the draft SEA's content, and those corresponding public comments were incorporated into discussion on relevant issues, without being explicit that the points are in response to public comments. The Final SEA is explicit about how the document has been changed in response to various public comments. Draft SEA Section 5*

(Public Participation) notes the NOI was done and Appendix D includes a copy of the actual notice. Copies of all received public comments are available to the public upon request, no such requests were received. The body of evidence to date does not support the statement that “There is wide-spread and overwhelming dissent...”. Relevant agency initial comments to the alternative actions’ Scope of Work were addressed in due process, to the extent allowed by law, in coordination with the FKAA, and as appropriate in preparing the evaluation. The draft SEA was circulated to these same agencies. FEMA coordinated closely with these agencies to ensure that they have sufficient information for their responses per NEPA and other applicable laws. Only the NMFS and FKNMS provided draft SEA comments, which are described above in Section 2.1 of this Appendix.

Comment Summary G1-13 (I44): The footnote regarding direction of wastewater flow in Figure 1 on Page 2-8 is misleading. Once injected into the aquifer treated effluent in fact follows natural flowpaths and resurfaces in surface waters.

Response G1-13: *The various footnotes have been reworded to clarify the figure’s intent, which is to show the direction of wastewater flow in the collection and transmission systems. PEA Sections 3.1.3 (Geology) and 3.2.2 (Groundwater), cited in the SEA, discuss the fate of shallow-well injected treated effluent, including the natural flowpaths and various receiving waters above and below ground, and nearshore and offshore.*

Comment Summary G1-14 (I45): FEMA’s July 21, 2003 letter to the U.S. Fish and Wildlife Service regarding Bay Point Endangered Species Act consultation would not have been available to the public because it was not included in the correct draft SEA and pages were missing.

Response G1-14: *The July 21st letter was mistakenly placed in the wrong document, this has been corrected for final SEA. It should be noted that URS’ May 6 letter to the U.S. Fish and Wildlife Service (which was, in its entirety, in draft SEA Appendix B) has the exact same content as FEMA’s July 21st letter. Draft SEA Section 3.3 (Biological Resources) in fact references and summarizes this letter’s content.*

Comment Summary G1-15 (#I46): Many of the figures are of poor quality, making them illegible.

Response G1-15: *The quality of some figures did not reproduce as well as intended. These figures have been improved for the final SEA hardcopy.*

Comment Summary G1-16 (#I48): The chlorine proposed for disinfecting the treated wastewater is “highly toxic to corals and other desirable marine life,” which will be adversely affected once they’re exposed to the resurfaced treated effluent.

Response G1-16: *This comment was addressed in PEA Section 3.3.2.1(Alternative 1 – No Action). If the FKAA select chlorination to disinfect effluent, then the chlorination would be monitored and regulated by FDEP, and if needed, plant adverse effect mitigation measures would be implemented, to ensure that the injected effluent meets all applicable water quality standards, including those for marine life. Therefore, no significant adverse effects on marine biological resources are anticipated. This point has been clarified in SEA Section 3.3.2.6 (Biological Resources – Alternative 2).*

Comment Summary G1-17(#I49): The draft SEA doesn’t indicate the quantity or location of alternatives’ injection wells or where the sludge will be disposed of. “Additional significant adverse impacts will occur at” the final sludge disposal site.

Response G1-17: *Draft SEA Sections 2.2.2.4 (Effluent Disposal) and 2.3.2 (Existing Key West Resort Utilities WWTP) provide this information. A more extensive discussion of sludge disposal effects is beyond the scope of the SEA because the FDEP considers these effects when it permits solid waste management facilities.*

Comment Summary G1-18 (#150): The draft SEA doesn't address alternatives' indirect and cumulative adverse effects on the floodplain.

Response G1-18: *Draft SEA Section 3.2.3 (Floodplains and Wetlands) addresses indirect effects. SEA Section 4.2 (Water Resources and Water Quality) has been revised to explicitly discuss cumulative floodplain effects. The alternative actions, when combined with past, present, and reasonably foreseeable future actions are not expected to cause significant adverse effects on the floodplain. Monroe County's Rate of Growth Ordinance, under the Florida Department of Community Affairs' oversight, control Keys' development and Monroe County's Floodplain Ordinance regulates building in the floodplain, both reduce adverse cumulative floodplain effects.*

Comment Summary G1-19 (#151): The alternatives' pollutants, contaminants, and hazardous compounds will be generated for 30 to 50 years. However, their adverse impacts on the environment will persist indefinitely.

Response G1-19: *The positive and negative environmental consequences from the alternative actions would persist, as described in the various PEA and SEA resource sections. The evaluation finds the alternative actions are not expected to cause any significant short- or long-term adverse environmental effects from such compounds.*

Comment Summary G1-20 (#152): The draft SEA indicates an "extensive in-ground wood chip bed would be used to minimize odors," yet there is no information on the nature or source of those wood chips. This is another adverse impact not addressed. Pond-cypress trees are often a cheap source for such wood chips. These are critical nesting habitat for federally-listed wood storks. Waterless toilets generate no odors requiring mitigation measures.

Response G1-20: *Details on the wood chips and the environmental effects of their extraction, processing, shipping, and use were not evaluated in the draft SEA because the expected quantity of wood chips for such a facility is relatively small, and they would be obtained from properly permitted operations, in accordance with applicable public laws and State and Federal resource agencies. Consequently, the environmental effects to the wood chip source sites would be negligible and beyond the scope of this SEA, should the FCAA select wood chips as the odor control measure at the VPS. SEA Section 3.4 (Air Quality) has been revised to clarify the VPS odor control measures.*

Comment Summary G1-21 (#153): The draft SEA "states the FCAA intends to transport future flows from the Boca Chica Community Service Area to the KWRU treatment plant." FEMA's November 22, 2003 public notice only references the Bay Point and Saddlebunch Keys project. The public is precluded from commenting on the "true intent of the FCAA" because the project's stated intent is "buried in a voluminous document several inches thick."

Response G1-21: *The draft SEA includes no such statement about the Boca Chica Community Service Area, it merely references a document that evaluates this for the FCAA. FEMA's November 22 public notice is accurate, the requested FEMA funding Scope of Work is only for the Bay Point and Saddlebunch Keys service area. The public may comment directly to the FCAA regarding their other wastewater management plans.*

Comment Summary G1-22 (#154): The KWRU facility has limited capacity for reuse disposal and existing injection wells overflow.

Response G1-22: *As described in draft SEA Sections 2.3.2 (Existing Key West Resort Utilities WWTP) and 2.3.3 (Construction Activities), the facility's capacity would be expanded, including at least one additional well, and there is sufficient reported reuse capacity to accommodate Bay Point flows. Should Alternative 3 be selected, the FCAA and KWRU operators would have to meet all applicable permit requirements. If overflowing injection wells become an FDEP permit violation, then it would be the FDEP's jurisdiction to pursue enforcement action.*

Comment Summary G1-23 (#157): The Environmental Assessments are devoid of citations for peer-reviewed, published scientific literature that address the fate and adverse environmental impacts of aquifer-injected fluids into karst aquifer systems.

Response G1-23: *PEA Section 8 and draft SEA Section 7 (References) provide all key references used in the evaluations, which include peer-reviewed and published scientific literature, which in turn, cite and are consistent with the larger body of this literature. PEA Appendix K Response G1-11 further addresses this previously submitted comment.*

Comment Summary G1-24 (#157-J58): The “myriad and widespread adverse direct, indirect, and cumulative impacts from the actions considered are of such a massive scale” an Environmental Assessment isn’t sufficient and a “full Environmental Impact Statement and Comprehensive Cumulative Impact Analysis are required.” An organization such as the National Academy of Sciences should be used to do the analysis.

Response G1-24: *With the possible exception of potentially substantial adverse economic effects under Alternative 3, the draft SEA found that adverse environmental affects would not be significant if the project is implemented as described, along with adverse impact mitigation measures and regulatory permit conditions compliance. Based upon the known facts and opinions to date, including various agency and public comments, although there are many issues and concerns, so far, none of them have met the criteria that would trigger an Environmental Impact Statement, which is at FEMA’s discretion in accordance with NEPA, CEQ guidelines, and Congressionally-mandated regulations. However, if various factors change enough, FEMA would reconsider, reevaluate, and revise or revoke its determination and take further action if appropriate. At FEMA’s discretion, various individuals and/or other organizations may assist with selected analyses, if FEMA determines that such assistance is needed. FEMA has determined that the assistance of its technical assistance contractors’ specialists, the assistance of the consulted State and Federal resource agencies’ specialists, and the assistance of those who have provided public comments has been sufficient in this case.*

G2 Gerald Mack (04-Dec-03)

Comment Summary G2-1: The cost of the sewer system is outrageous for most residents and the \$60 per month service fee is unaffordable when added to the initial costs. It doesn’t make sense to have sewer plants on each Key, larger plants are more cost effective for residents.

Response G2-1: *For proposed action Alternative (2), FEMA has determined that the costs are reasonable and affordable based on the PEA’s findings (Section 3.6.3 Local Fees and Taxes). Additional financial assistance would be available to qualifying low-income service recipients as described in draft SEA Section 3.7.2 (Income and Poverty). The FKAA, in cooperation with Monroe County, has been encouraged to further reduce proposed costs to meet the County’s cost reasonableness goals. For proposed action Alternative (3), the costs were found to be unreasonable and possibly unaffordable. Should the FKAA select this alternative, FEMA would work with the FKAA and County to reduce costs. If this can not be achieved, then FEMA may prepare an EIS to further evaluate economic effects. WWTPs serving large numbers of service connections are generally more cost effective. The FKAA has looked at a number of other alternatives to serve Bay Point and Saddlebunch Keys, and they determined that the presented alternatives were most viable overall.*

Comment Summary G2-2: Effluent disposal in wells may pollute the water supply (Sun Sentinel article attached – “Sewage System Faces Overhaul”).

Response G2-2: *The shallow injection wells would not discharge the tertiary treated effluent into potable water supplies. PEA Section 3.2.2 (Groundwater) describes the Keys’ groundwater resources, and Section 3.2.2.2 (Alternative 2) outlines the expected consequences of shallow well injection. The Key’s potable water supply are obtained from mainland Florida, which*

would be unaffected by this shallow well injection. The Key's Florida mainland potable water supplies are regulated and protected by FDEP and the U.S. EPA, under the federal Safe Drinking Water Act.

G3 Captain Eric West (14-Dec-03)

Comment Summary G3-1: He concurs with Dr. Bacchus' "findings and concerns" and notes that FEMA has an obligation to protect the environment, and the citizenry, and to "not make decisions that will adversely affect" them. He feels it is mandatory FEMA complete an unbiased EIS for all the wastewater projects.

Response G3-1: See Response G1-24, which addresses this comment.

G4 Greg Gordon (16-Dec-03)

Comment Summary G4-1: [These comments are not Keys' project specific.] A full EIS is needed to determine the adverse environmental impacts from aquifer-injected effluent. He has had increased incidents of sinus infections after surfing, which he attributes to pathogen presence in nearshore waters. He has also noticed more sea lice, which feed on macroalgae (large) and depend upon higher nitrogen levels to thrive. Nutrients and other pollutants discharged from existing sewage wells could be causing these things. U.S. EPA is not enforcing compliance with its current well operation standards.

Response G4-1: See Response G1-24 regarding EIS preparation. PEA Sections 1.4 (Sources of Keys Water Quality Degradation), 1.5 (Focusing on Wastewater Management in the Florida Keys), 1.9 (Purpose and Need) and 3.2.3 (Inland, Nearshore, and Offshore Waters), and Appendix K (Comment and Responses on the Draft PEA) Comment Response G1-2 address many aspects of Keys' nutrient loading and pathogen release, and water quality improvements, including the consensus from the scientific community. As described in PEA Section 1.5, Keys' viral tracer studies show that the effluent discharged into cesspits, septic systems, and shallow wells quickly resurfaces in Keys nearshore waters. Alternative action's treatment to BAT or AWT and effluent disinfection is expected to substantially reduce the wastewater nutrient loading and pathogen release to Keys groundwaters and nearshore waters, and to a lesser extent, also to offshore waters. The U.S. EPA and FDEP would monitor and enforce injection well permit compliance. An Applicant's receipt of FEMA grants funding is conditioned upon many requirements, including the Applicant's permit condition compliance.

G5 Tom Warnke (19-Dec-03)

Comment Summary G11-1: Provided copies of two 12/6/03 Keysnews.com articles: "Sewer Plant Goes to High Bidder" and editorial "Political Decisions Undermine Projects" regarding recent KLWTD Board decisions.

Response G11-1: Articles have been included in the project file's public record.

3.3 Workshop Participants

W Various Individuals (04-Dec-04)

Comment Summary W1: When environmental impacts are mentioned, do they refer to those from construction or long-term on water quality after the project is built or both?

Response W1: The SEA addresses both construction and foreseeable future (about 20 years) environmental effects.

Comment Summary W2: There is some uncertainty about what funding is going towards the project.

Response W2: The project will receive about \$3 million in FEMA Unmet Need grant funding with about an additional \$500,000 matching funds from the Florida Division of Emergency Management. It is

FEMA's understanding that Monroe County has committed to provide additional funding, beyond the grant local match requirement, towards the project, to ensure costs to service recipients are reasonable.

Comment Summary W3: What is the estimated cost per residence to install the plumbing to connect to the wastewater collection system in the street?

Response W3: *SEA Section 3.6.3 (Local Fees and Taxes) estimates the cost of abandoning the existing on-site system and installing a lateral service connection to the wastewater collection system to be between \$1,500 and \$5,000 per residence. The estimate was derived in coordination with the FCAA, Monroe County, and the Village of Islamorada.*

Comment Summary W4: You said that FEMA regulates environmental impacts, did you also say FEMA would not be responsible if something goes wrong?

Response W4: *FEMA is responsible for identifying and evaluating potential environmental consequences of its actions to comply with a number of federal environmental laws. This is part of the NEPA process that lead to this SEA. Other federal and state regulatory agencies are responsible for regulating various environmental resources. The FCAA is responsible for complying with both FEMA's grant conditions, which includes adverse environmental impact mitigation measures; and applicable regulatory and other permit conditions. Receipt of federal funding is jeopardized if the FCAA fails to comply with these conditions, and regulatory agencies may pursue enforcement action for permit violations. Facility management is the FCAA's responsibility and FEMA has no long-term oversight.*

Comment Summary W5: Do we need the project?

Response W5: *PEA Sections 1.4 (Sources of Keys Water Quality Degradation) and SEA Section 1.4 (Purpose and Need) address the project's purpose and need. Although there has been no specific study of Bay Point's contribution to the documented declining Keys nearshore water quality, the factors that collectively contribute to water quality degradation from wastewater discharge are present in Bay Point. These include a predominant use of cesspits and septic systems to treat wastewater and relatively high population density.*

Comment Summary W6: If the draft SEA finds that the alternative actions won't have a "Significant Impact," then does that mean that the action won't improve water quality?

Response W6: *This means the action alternatives won't have any significant adverse environmental impacts, but there may be substantial adverse economic affects under Alternative 3. The action alternatives are expected to reduce wastewater nutrient loading and thereby help improve nearshore water quality, which would also benefit marine biological resources.*

Comment Summary W7: Why was Bay Point selected for the FEMA Unmet Need funding?

Response W7: *Monroe County and the FCAA selected Bay Point because it is a MCSWMP identified 'hot spot' and the estimated project costs were consistent with the amount of FEMA grant funding available.*

Comment Summary W8: Are there specifics on where the worst water quality problems are? The decisions don't seem to be based on good science.

Response W8: *As described in PEA Sections 1.4 (Sources of Keys Water Quality Degradation) and 1.5 (Focusing on Wastewater Management in the Florida Keys) Monroe County's wastewater and stormwater 'hot spots' are the Keys-wide water quality concern areas. There is no specific information on where the worst water quality areas are around Bay Point and Saddlebunch Keys. Also refer to response G1-3 above regarding the consensus from the scientific community on the causes of declining water quality.*

Comment Summary W9: There are different population densities on Bay Point [small lots with mobile homes and single family houses] which likely have a different proportional contribution to water quality problems. In light of this, why is all of Bay Point considered a ‘hot spot’?

Response W9: *All of Bay Point is included in the ‘hot spot’ delineation because many of the houses have septic systems that don’t treat wastewater much more effectively than cesspits. The FKAA and County are also sensitive to having an economy of scale in sizing the service area and respective treatment facility to reduce costs.*

Comment Summary W10: The Bay Point and Saddlebunch Keys project [hot spot] seems to have been identified based on a theoretical model rather than sound science.

Response W10: *See Responses to Comment Summaries W5 and W8.*

Comment Summary W11: Is the long range plan for separate systems on each Key?

Response W11: *The MCSWMP has short-term and long-term plans. Implementation of that plan and modifications is at the discretion of the County and FKAA.*

Comment Summary W12: Is the project site along US1 set in stone?

Response W12: *The FKAA and Monroe County looked at a number of site alternatives and the Alternative 2 site was determined to be the most viable based upon a number of factors. Also see Response W19.*

Comment Summary W13: Is the contract fixed cost or fixed cost plus?

Response W13: *The Unmet Need grant amount is fixed. Consequently the FDEM’s grant contract with the FKAA is for a set amount. The type of contract the FKAA has with its contractor is at its discretion.*

Comment Summary W14: Are there any plans for before/after project water quality monitoring?

Response W14: *FEMA cannot require the FKAA or County to implement before and after project completion water quality monitoring in the Bay Point area. However, FEMA does recommend water quality monitoring. SEA Section 7 (Conclusions) addresses this point.*

Comment Summary W15: What will the road conditions in the service area be like after the collection system has been installed, there is concern from viewing other projects they won’t be well restored?

Response W15: *The FKAA has acknowledged this concern and will take appropriate actions to restore roads as needed, in accordance with the County’s standards*

Comment Summary W16: The draft SEA seems to have little authority and many recommendations that could be ignored.

Response W16: *NEPA, the law which the SEA responds to, is a process of making findings of effect to better inform project decision-makers of their action’s environmental consequences and environmental compliance requirements. Therefore, one of the SEA’s objectives is to recommend ways to reduce the project’s adverse environmental effects. Independent of NEPA, there are a number of other environmental laws, which also apply to this project, that do have specific resource authority, adverse effect minimization requirements, and penalties for non-compliance. The State’s 2010 effluent discharge standards for injection wells and Executive Order 12898 (Environmental Justice) are two such examples. Furthermore, it’s in the FKAA’s best customer service interest to make a good faith effort to work with service recipients on achieving these recommendations.*

Comment Summary W17: What are the plans for vegetative screening around the facility, what are the County’s requirements?

Response W17: *Monroe County's Land Development Regulations provide specific requirements for site landscaping. Final landscaping plans have yet to be completed, however, the FKAA and County have acknowledged this concern and intend to minimize adverse viewshed effects to adjacent uses. SEA Section 3.11.2 (Visual Resources) has been revised to more clearly address this comment.*

Comment Summary W18: There is concern about ingress and egress during collection system installation; what should residents expect?

Response W18: *As described in draft SEA Section 3.9.1 (Traffic and Circulation), normal traffic patterns will be temporarily disrupted during construction; however, the FKAA will provide ingress and egress to residents.*

Comment Summary W19: When was Alternative 3 first proposed and why is this the first meeting public participants are hearing about it? How can residents select this Alternative since the proposed Alternative (2) has been decided for residents by the County Commission?

Response W19: *Since submitting the proposed action Alternative (2), the FKAA has considered a number of other action alternatives including several different wastewater treatment plant sites. The FKAA first notified FEMA in April 2001 that it was considering the KWRU alternative. The FKAA informed FEMA that the KWRU alternative was the most viable relative to the proposed action in January 2003, and provided conceptual plans for this alternative to complete the SEA. FEMA's notice of intent to prepare the SEA was published in late May 2003 and this included the alternatives FEMA was reviewing. Improved wastewater treatment for Bay Point has been a Monroe County Commission Meeting Agenda item many times since at least July 2002. Furthermore, the FKAA has held at least two resident workshops, as described in SEA Section 5 (Public Participation). FEMA's Unmet Needs grant program generally does not require that it develop action alternatives because it is only providing funding. Consequently, feasible alternative development and selection is at the grant applicant's discretion, so long as they comply with the various grant requirements, environmental laws, and regulations. Also see Response G1-10.*

Comment Summary W20: Why are we not getting more funding from state and federal sources for this very important project. The small funding they have offered doesn't seem to match their assessment of the importance of the project?

Response W20: *PEA Appendix H (Funding and Financing Options) provides a comprehensive listing of funding sources including from other federal and state agencies. Soliciting additional funding sources is at the FKAA and Monroe County's discretion as they are sponsoring the project.*

Comment Summary W21: How was the Bay Point wastewater project's service area designated? Why does it encompass the area that it does? Alternatives could have been: 1) only the area west of the western canal on Bay Point; 2) #1 and Bluewater Key; 3) the current area plus the Southpoint area of Sugarloaf Key; and 4) the current designated area plus all of Sugarloaf Key.

Response W21: *The service area stemmed from the MCSWMP, and Monroe County and the FKAA delineated the project's service boundaries. MCSWMP Chapter 5 provides more detail and service area determining factors at least included practicality, engineering feasibility, and cost effectiveness. Also, refer to Responses W9 and W19*