

Commentator	Comment	Response
Steve Salamone 1310 E. High Jefferson City, MO 65101	Protect from flooding existing vital river plain developments	While the area protected by Unit L142 would include some flood prone land that would be subject to higher levels of development, the selected plan is the most practical means of protecting the vital public investments in that part of the floodplain.
Steve Salamone	Primary ?? Airport ?? Sewage treatment plant ?? Highway 54 ?? ABB Power ?? M.A.N.G. Helicopter Port	We concur that the listed properties are a high priority for flood damage reduction and represent a compelling Federal interest in constructing Unit L142.
Steve Salamone	Secondary ?? City park west of Highway 54 ?? Midwest Block & Brick Pre-mix Plant ?? Capital Sand	A significant portion of the land protected by Unit L142 is presently undeveloped and will remain so through the combined effects of deed restrictions and existing land use plans developed by Jefferson City, the owner of much of that land. Our analysis of the justification for Missouri River Unit L142 does not include benefits for protecting the undeveloped land that would remain undeveloped.
Steve Salamone	South bank riverfront park future development	Because the Unit L142 alignment is outside the regulatory floodway, any opportunities for riverfront development on the south or right bank would be essentially unchanged by construction of the levee.
Steve Salamone	Backwater flooding of Turkey Creek on north side	The construction of the L142 unit does not alter any backwater effects from the Missouri River up the Turkey Creek channel. The Missouri River flood elevations are far greater than the Turkey Creek water surface elevations (WSEL). Therefore, the proposed project does not have any effect on Turkey Creek.
Steve Salamone	Backwater flooding of Wears Creek on south side	The proposed L142 unit has negligible effects (no more than 0.1' for the 1-percent chance event) on the stage of the Missouri River. Additionally, due to the steep slope of Wears Creek and hydraulic constraints as result of the Railroad embankment on the south side (or left bank) of the river the impact of such a small increase is impossible to realistically determine. With the cooperation of Jefferson City and the State of Missouri we are examining

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		alternatives to alleviate flooding in the Wears Creek basin.
Steve Salamone	Union Pacific Railroad Tracks	The susceptibility of this item to flood damage would be essentially identical with or without construction of Unit L142.
Steve Salamone	Ameren UE power lines along R.R. tracks	The susceptibility of this item to flood damage would be essentially identical with or without construction of Unit L142.
Steve Salamone	Interstate Management of Missouri River flows	The management of the Missouri River as an interstate resource is the subject of ongoing, detailed and comprehensive discussions among several Federal agencies and the affected States. The Selected Plan for Unit L142 would not materially constrain the range of opportunities for future management of the Missouri River.
Steve Salamone	Upper state's reservoirs for recreation & tourism	See response to "Interstate Management of Missouri River flows"
Steve Salamone	Lower state's conservationist issues	See response to "Interstate Management of Missouri River flows"
Steve Salamone	Return to slower river velocity	To the extent that construction of Unit L142 would affect average or peak Missouri velocities, the effect would be negligible.
Steve Salamone	Return to islands/backwaters for species redevelopment	As part of the selected plan, we have included measures in the design of Unit L142 that mitigate the adverse consequences of levee construction and operation on fish, wildlife, and other natural values. Other activities funded by Congress for the purposes of preserving, enhancing, or restoring floodplain habitat are underway. While the mitigation features included in the Unit L142 selected plan do not address environmental value remote from the area affected by project construction, they are appropriate to the size and effects of the selected plan.
Steve Salamone	New flood control/drought control lakes monolithic with river. No dams. Excavate surrounding river plain to near existing river bed levels.	The Missouri River Levee System has been under construction for many years. The general parameters of the levee system are established in the authorizing legislation, the 1944 Flood Control Act. Although alternative actions to reduce recurring flood damages or provide other public benefits may be available, structural flood damage reduction remains a viable and necessary option where public and private investment is already subject to flooding.
Steve Salamone	Expand the Missouri River channel in the	See the preceding response. Briefly, the Missouri River Levee

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	Jefferson City area and develop a riverfront park	System authority is available to provide Federal assistance with structural flood damage reduction. Other types of responses to existing flood threats would come under some other authority that would be beyond the scope this GRR.
Mike Rodemeyer P.O. Box 34 Hartsburg, MO 65039-0034	It will divert a higher level of water into Jefferson City and there is a lot more than \$30,000,000 dollars in value that will be destroyed there.	See response to “Backwater flooding of Wears Creek on south side.”
Mike Rodemeyer	The water will be bottled up and the speed of the river will increase which will do greater harm below (east of) the levee	See Table B-2.30 pg. 41, in Appendix B of the GRR. For cross section 141, immediately downstream of the proposed project, the computed velocity in the channel for the 1-percent-chance event without the project is 11.3 feet per second, and with the project, it is 11.2 feet per second. For the 0.2 –percent-chance event, the velocity is increased less than 10 percent for the with and without project conditions. These very small differences indicate that velocity changes are insignificant.
Mike Rodemeyer	Water may back up behind the sod farm levee and this new levee and cause more damage above the levee (to the west)	For the 10- and 2-percent-chance exceedance flood events the impact of the proposed L142 levee unit would be negligible. For the 1-percent-chance event the upstream elevations increase 0 to 0.2 feet.
Mike Rodemeyer	ABB, the airport and the treatment plant should move, and there would be no cost of \$2,068,000 per year for maintenance. The treatment plant needs to be rebuilt, so do it now, somewhere high and dry.	The NED Plan for Unit L142 was developed and evaluated based on expressions from other Federal, State and local agencies describing their most likely future activities. The future operation and location of Jefferson City’s wastewater treatment facilities is at the discretion of the responsible city officials. The Unit L142 Plan reflects indications from City officials that the wastewater treatment plant will likely be expanded at its present location in the near future.
Mike Rodemeyer	With almost 100% employment now, could do without ABB in Jefferson City.	Noted. We have also received statements expressing a substantially opposite view.
Mike Rodemeyer	The airport could be moved north or abandoned in favor of the regional airport near Ashland.	The NED Plan for Unit L142 was developed and evaluated based on expressions from other Federal, State and local agencies describing their most likely future activities. The future of the

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		Jefferson City airport is largely the responsibility of the City and the Missouri Department of Transportation. The Unit L142 Plan reflects indications from the City and MoDOT that the airport will continue to operate and possibly expand at its present location.
Mike Rodemeyer	MFA isn't worth discussing. They should move either way.	Noted. The NED Plan would reduce recurring Missouri River flood damages to the MFA facility.
Mike Rodemeyer	Why are cities the only people that can build in floodplains? Let's get them out now!	Regulation of land use is a responsibility traditionally reserved for State government. The Federal Government conducts programs designed to foster wise land use from the perspective of the National interest. While the Federal Government generally supports the policy of keeping future development out of floodplains, the case-by-case decision of whether to develop or preserve a particular floodplain property resides with the property owner and the State or subordinate unit of government with jurisdiction over land use where the property is located.
Mike Rodemeyer	With the Corps giving in to the desires of the Sierra Club, we will have giant floods every 2-3 years. A smooth, undeveloped grassland is the best plan for the next 50 years	We support the preservation of natural floodplain values and discourage new floodplain development whenever a practicable alternative is available. Structural flood protection such as the Unit L142 NED Plan would reduce flood damages from recurring floods up to the design magnitude. Undeveloped open space is essentially free from flood damage for any magnitude of flood event.
Danny Baumgartner 1901 Bunker Hill Jefferson City, MO 65109	Please consider reviewing the property known as Turkey Creek Golf Center. We have a building, a driving range, and we are in the process of building a lighted par 3 golf course and mini-golf.	A guiding principle in selecting a flood damage reduction plan for Federal participation is to choose plans that have greater net benefits compared to costs. The selected land for Unit L142 protects the major centers of infrastructure investment, and, therefore, the major centers of potential flood damages. Some additional benefits could be obtained by lengthening the levee. A longer levee would protect larger amounts of undeveloped land and only isolated clusters of flood damageable property. The cost of the added levee would exceed the value of the potential flood damage reduction that could be obtained. Therefore lengthening the levee to protect additional property would reduce the net benefit of the project overall.

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Danny Baumgartner	Please consider moving the levee next to Turkey Creek	See response to “Please consider reviewing the property known as Turkey Creek Golf Center.”
Clarence Trachsel Reveaux Levee District Board Member	Review the Corps of Engineers report on the proposal to raise Highway 54 (when it was elevated ~30 years ago and determine how far downstream the water flow would be effected <i>[sic]</i> . Compare that number with the 2 ¼ miles of severely damaged farmland during the 1993 and 1995 floods. I believe you will soon determine that the Corp’s <i>[sic]</i> model significantly underestimated the impact of adding Highway 54	The Missouri Department of Transportation (MoDOT) constructed the Highway 54 bridge and associated embankments. As part of the project MoDOT did have to abide by all Federal, State, and local floodplain regulations. Since MoDOT would have done the initial modeling they would have the most accurate data. The Corps has extensive experience and it has been shown on numerous occasions that since the Highway 54 bridge is outside of the FEMA floodway the hydraulic conditions in the vicinity of the Capital View Levee District are similar with or without the Highway 54 bridge and embankment.
Clarence Trachsel	Perform an analyses <i>[sic]</i> of the same area with todays <i>[sic]</i> L142 model to determine that it predicts difference in flow rate that caused the damage that would have occurred during the 1993 and 1995 flood (2 ¼ miles downstream). If it doesn’t compare favorably then adjust the surface roughness and other parameters to give an effect that could provide the downstream damage and then using those parameters rerun the analyses to determine the downstream velocity of the L142 levee. I believe you will find a significant different <i>[sic]</i> from your current analyses in flow velocities at the location of the Reveaux Levee	We have analyzed the hydraulic performance of the Missouri River and effects of Unit L42 using hydraulic models that were calibrated to reproduce the 1993 and 1995 observed conditions. At river mile 140, approximately the upstream end of the Reveaux Levee District, the modeled flow velocities for the 1-percent-chance flow are 11.4 fps with project and 11.5 fps without project. For the 0.2-percent-chance flow event, the modeled velocities are 11.8 fps for the with and without project conditions. These model results indicate that, with or without the L142 levee, the flow velocities at the Reveaux levee are virtually the same.
Clarence Trachsel	Reduce the flood stage levels from the 1993/1995 flood levels to a 30 foot flood and rerun the Existing L142 Model and determine the water height along the upper Reveaux levee.	The 1993 and 1995 floods had gauge readings of 38.6’ and 32.7’ feet respectively. A flood event with a 30-foot gauge reading would represent an event more frequent than the 10-percent-chance event. The hydraulic conditions (stage and velocity) in the vicinity of the Reveaux levee for such a frequent event would be unchanged with or without the L142 NED Plan.
Clarence Trachsel	Once you have performed the above analyses we will be in a position to discuss any	Currently, the 20- to 10-percent-chance event overtops the Reveaux Levee. The L142 NED Plan would have no impacts on

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	necessary adjustments to the Reveaux Levee to assure we do not incur additional damage as a result of the addition of the L142 Levee	the more frequent future flood events that would overtop the Reveaux Levee. Additionally, for the less frequent (1- to 0.2-percent-chance) events, after the Reveaux Levee is flooded, the L142 NED Plan has no impacts to the Reveaux Levee.
Clarence Trachsel	Blockage of over Hwy 54 and the Katy Trail flowways with the L142 Levee will result in increased speed of water, carry additional sand and do additional damage after the Reveaux Levee is topped in a major flood.	Our studies documented in the GRR indicate that the movement of large floods is essentially confined to the channel vicinity. While overbank areas do provide storage of some of the total flow in large floods, this water must return to the channel after the flood crest before it moves downstream. Consequently, the L142 NED Plan would have no noticeable effect on the damage that might result in the Reveaux Levee District from a future flood that overtops the levee.
Clarence Trachsel 3201 Rockwood Trail St. Charles, MO 63303	Change in Flow Distribution and Water Elevation: Blockage of the Highway 54 Highway and Katy Trail Flow path for 1993 and 1995 like floods will increase flow velocity around the Highway 54 bridge. The impact of this will be significant downstream.	As explained in previous responses, downstream hydraulic conditions change little or not at all as a result of the L142 NED Plan.
Clarence Trachsel	Change in elevation due to creation of captive water pocket: The additional velocity of the water flowing around the levee and under the bridge will create a dynamic pressure head in the pocket between the L142 levee and the Reveaux Levee.	As explained in previous responses, downstream hydraulic conditions change little or not at all as a result of the L142 NED Plan.
Bea Richard Elaine Richard Burcham Frank J. Burcham	There seems to be a minimal amount of attention paid to the consequences, intended or unintended, to the farmers, some fourth generation, and business persons within capital view levee district that will be left outside a Corp of Engineers Public Law 84-99 eligible levee.	Significant social effects of Federal actions must be identified and considered by decision-makers to achieve compliance with the National Environmental Policy Act. While the secondary effects of Unit L142 may be adverse for some farming interests, the net social effect on balance is positive. While, eligibility for the PL84-99 program may be in jeopardy for the Capital View Levee District, the City of Jefferson, as the L142 non-Federal sponsor, has advanced a proposal to mitigate for the loss of PL84-99 program eligibility in the Capital View Levee District.
Bea Richard	Given the size of the proposed structure, the	In conducting our study and preparing the GRR, we gave a high

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Elaine Richard Burcham Frank J. Burcham	proposed drainage systems and the proposed stop gaps on new and old 94 highway, I think changes in current water flow patterns and traffic patterns at high river stages, as well as subsequent drainage issues, are not addressed.	level of focus to determining the hydraulic effect of Unit L142 on future floods and to designing a project that respects the Federal Emergency Management Agency (FEMA) established floodway in the vicinity of Jefferson City. Additionally, all upstream, downstream, and across the river hydraulic impacts are fully examined.
Bea Richard Elaine Richard Burcham Frank J. Burcham	Why not utilize existing structures for the base as contrasted to the proposed juxtapositioning which has to be more expensive?	The alignment of the Capital View agricultural levee could not be adopted for Unit L142 because it violates the regulatory floodway. In addition, because of the stricter structural design standards for the L142 levee, the old levee would have to be removed and reconstructed resulting in an added cost for removal rather than a cost saving.
Bea Richard Elaine Richard Burcham Frank J. Burcham	This proposal should include an environmental impact statement to include a family impact statement which recognizes the endangered species “landowners” and provides specificity to a protection plan for them.	The Environmental Assessment for Unit L142 addresses the impacts of the project on the socio-economic environment of the project area.
Frank J. Burcham Country View Management, Inc. 541 Hillsboro Road Farmington, MO 63640	It’s time these people receive attention at least equal to that provided the “Indiana Bat” or the “pallid sturgeon”. I write on behalf of the memory of my much loved deceased father-in-law, Mom Bea, and my lovely wife of 33 years, Elaine.	See response to Bea Richard comment beginning “There seems to be a minimal amount of attention paid to the consequences, intended or unintended, to the farmers...”
R. Mark Wilson Field Supervisor U.S, Fish and Wildlife Service 601 East Cherry Street, Room 200 Columbia, MO 65201	1. Since channelization and levee construction have already resulted in the loss of riparian and wetland habitats in the Missouri River basin, these habitats should be avoided to the maximum extent practicable when selecting borrow sites for the proposed levee, and compensatory mitigation should be undertaken for unavoidable impacts.	As discussed in the GRR and Environmental Assessment for L142, wetland habitats were avoided to the maximum extent practicable for levee alignment and borrow site selection. Wetland mitigation would be implemented as proposed and coordinated with USFWS-Columbia for all unavoidable wetland impacts. Also, where possible borrow sites will be graded so as to encourage wetland development post-construction .
U.S, Fish and Wildlife Service	2. The Corps should create wetland mitigation habitat to compensate for the loss of wetland acreage from the construction of the project.	Wetland mitigation is discussed in the EA for L142. A mitigation site totaling 42 acres is proposed to compensate for unavoidable impacts. In addition, see comment above regarding borrow sites.

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	Because 17.1 acres of emergent wetland are to be directly impacted, then it is necessary to restore 25.5 acres of non-wetland should be mitigated at a 1.0 to 1.0 ratio.	
U.S, Fish and Wildlife Service	3. The Service has determined that the impervious borrow areas might be suitable as possible mitigation sites depending on the interpretation of FAA guidelines. Open shallow water should occur on at least 50 percent of the mitigation site to provide the needed aquatic habitat for a variety of wildlife species such as amphibians and reptiles. The Corps should develop criteria for the wetland mitigation site especially during the spring, early summer and fall months.	The proposed wetland mitigation site will function similar to existing wetlands in the Project area. Existing wetlands rely on surface runoff for their hydrology. A more reliable hydrology source will be created from Turkey Creek, as well as surface runoff. The wetland will have gradual contours, however, timing and duration that the wetland contains water will depend on environmental conditions because this wetland will not have a controlled water intake or outlet structure.
U.S, Fish and Wildlife Service	4. Borrow areas and wetland mitigation areas should be irregular in shape and have an irregular bottom providing both shallow and deep water habitat. The Corps should determine whether a reliable source of water is available for the wetland mitigation sites before implementing the plans.	Noted. See comment above and Section 6.1.6 of the EA for further information.
U.S, Fish and Wildlife Service	5. Levees should be seeded with warm season grasses such as switch grass.	Concur.
U.S, Fish and Wildlife Service	6. A buffer strip around the borrow areas should be planted with a mixture of warm season grasses, shrubs and trees that occur on the floodplain of the Missouri River.	Concur. See Section 6.1.6 of the EA.
U.S, Fish and Wildlife Service	7. Mitigation and borrow areas should be associated with the Missouri Department of Natural Resources' Katy Trail as much as possible.	Concur. The Corps will continue to coordinate with MDNR and Jefferson City on this matter.
U.S, Fish and Wildlife Service	8. The Corps should redesign the western section of levee to avoid the FEMA buyout	Redesign of the Unit L142 levee has reduced the levee footprint on Hazard Mitigation Grant Program lands from 2.74 acres to 1.47

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	area in the former Cedar City area which was purchased under the Section 1362 Flooded Property Purchase Program.	acres. The Federal Emergency Management Agencies (FEMA), State Emergency Management Agency (SEMA), the City of Jefferson, and the Corps agree that further reduction is not practicable.
U.S, Fish and Wildlife Service	9. If possible, the random borrow areas between Mokane Road and the Missouri River should be hydrologically connected to the Missouri River and provide water depth of eight feet or deeper.	Noted. The feasibility of pools connected to the Missouri River will be considered during more detailed plan development..
U.S, Fish and Wildlife Service	10. Brush shelters should be place in the borrow areas to provide shelter for both fish and wildlife species.	Concur. Where possible this will be done.
U.S, Fish and Wildlife Service	11. Islands should be created in the borrow areas to provide a safety barrier against predators.	Noted. Borrow areas will be contoured to provide varying water depths. The contouring can include island formations.
U.S, Fish and Wildlife Service	The Service does not expect the project to adversely affect the bald eagle, Indiana bat or the pallid sturgeon provided that the borrow sites are located on the floodplain and no mature riparian timber is destroyed by this project	Noted.
U.S, Fish and Wildlife Service	If the Corps should decide that dredging in the Missouri River is necessary for borrow material such that the pallid sturgeon may be affected, then formal or informal consultation should be initiated with this office.	Concur
U.S, Fish and Wildlife Service	The public notice indicates that the project will impact 17.1 acres of emergent wetlands and 32.9 acres of farmed wetlands.	The specific acreages were refined after publication of the draft GRR. As described in Section 6.1.6 of the EA, the NED Plan includes mitigation for the emergent and farmed wetlands impacted by the Plan.
U.S, Fish and Wildlife	A careful selection of borrow areas on the	Concur.

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Service	riverward side of the proposed levee, and the protection of existing depressional areas, may also increase the habitat diversity for riverine fish species likely to be found adjacent to the project.	
U.S, Fish and Wildlife Service	The western length of new levee alignment will pass through what once was Cedar City.	Concur.
U.S, Fish and Wildlife Service	The Corps should clearly define how they will construct emergent or forested wetlands without encouraging the aggregation or roosting of waterfowl or large waders.	Several areas of open water near the project, such as the ABB pond and the Missouri River, attract waterfowl and waders. These wetlands already in the project area do not commonly attract waterfowl and large waders. We anticipate that the mitigation site will function similarly.
U.S, Fish and Wildlife Service	Cumulative impacts should be considered for the Missouri River as a whole.	When referring to the CEQ definition of cumulative impacts, there is no requirement on spatial or temporal boundaries. These factors are left up to the discretion of each agency. Therefore, the parameters we chose are in compliance with CEQ.
U.S, Fish and Wildlife Service	The prospect of increased levee elevation to protect against the 1,100-year flood may change the hydrology of this general reach of the river.	The levee may affect the local hydraulics but not the hydrology. The prospect of increased elevation will not affect the hydrology at all. Any levee would have some effect on some floods. The additional effect of a 1,100-year levee compared to some smaller levee would occur, on the average, only about once in 1,100 years.
U.S, Fish and Wildlife Service	It has been shown that more and larger levees are increasing the frequency and size of flood events.	On the Missouri River, the relationship between levee construction and the rising flood profile is far from scientifically demonstrated. Other factors may be contributing equally or to a greater extent to the observed stage trend.
U.S, Fish and Wildlife Service	The federal assurance of maintaining a 1,100-year level of protection on the Callaway County side can only mean higher and prolonged surface profiles for this reach of the Missouri River with both direct and indirect hydrological effects.	Because the L142 alignment respects the Missouri River Designated flowway, it will have virtually no effect on floods more frequent than the 1-percent-chance flood. For larger floods, the increase in profile will be 0.5-foot or less. The duration of overbank stages at the L142 location may or may not be lengthened depending on the timing of the specific events. The duration of high stages may actually be reduced because significant overbank storage will be precluded by the levee.
U.S, Fish and Wildlife	It is our understanding that the reason for	The U.S. FWS understanding is incorrect. The design height of

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Service	Corps' increasing flood protection from 80 to the proposed 1,100 year protection is the "upward spiraling effect" or cumulative impacts of the many structural measures, such as levees, on raising flood heights on the Missouri River floodplain.	the levee provides the level of flood protection that produces the maximum net economic benefits among the alternatives considered.
U.S, Fish and Wildlife Service	We should be working to restore wetland areas and floodplain values along the Missouri River to help reduce flooding, not destroying or altering these functions which increases flooding.	Through the Missouri River Fish and Wildlife Mitigation Project, as well as other environmental programs, we have been restoring wetlands and floodplains along the Missouri River. These programs may continue for several years. However, in areas where critical infrastructure is already established in a floodprone location, structural flood protection is considered in the public interest.
U.S, Fish and Wildlife Service	Non-structural measures of reducing flood damages would be consistent with the ongoing Corps, Service and MDC floodplain restoration projects along the lower river.	Noted. Plan formulation for Unit L142 included the evaluation of two non-structural plans. For the reasons documented in the GRR, the NED Plan better serves the public interest than either of the nonstructural plans.
U.S, Fish and Wildlife Service	The Service believes that the Corps should mitigate the direct impact to existing emergent wetlands at a 1.5 to 1 ratio	Concur. Mitigation action included in the NED Plan achieves approximately 2 to 1 replacement of emergent wetlands directly impacted by the NED Plan.
U.S, Fish and Wildlife Service	The Service believes that the 32.5 acres of farmed wetland can be mitigated at a 1.0 to 1.0 ratio.	Concur. Contouring of borrow sites is expected to replace farmed wetland impacts at least to a 1.0 to 1.0 ratio.
U.S, Fish and Wildlife Service	Borrow site 1 should be sufficient to mitigate for losses of emergent wetlands.	Noted.
U.S, Fish and Wildlife Service	It is our understanding that once mitigation is completed, the Missouri Department of Natural resources will accept management responsibilities for the proposed wetland mitigation sites. If this is the case, then we recommend that the Corps attempt to mitigate for impacts to farmed wetlands along the Katy Train in the northern impervious borrow site.	Noted, where possible we will attempt to do this.
U.S, Fish and Wildlife	A reliable source of water may be the limiting	Noted. See comment above on wetland mitigation site using

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Service	factor in creating wetland habitat at either site.	Turkey Creek for a reliable water source.
U.S, Fish and Wildlife Service	We understand that Borrow Site I will be designed to allow water to flow into that site from Turkey Creek.	That understanding is accurate.
U.S, Fish and Wildlife Service	Trails, observation towers and interpretive information could promote wetland and floodplain values.	Concur. Coordination with Jefferson City and MDNR will be ongoing for these activities. The levee will be constructed to provide a loop trail to the River from the Katy Trail. The City and MDNR have already expressed an interest in providing interpretive information along these trails.
U.S, Fish and Wildlife Service	We agree that the proposed wetland mitigation site should not be an open water duck pond but recommend that standing water of up to three feet deep should occur on at least 50 percent of the mitigation site to provide the needed aquatic habitat for a variety of wildlife species...	See comment above regarding wetland mitigation. Hydrology will be passive at this site.
U.S, Fish and Wildlife Service	Therefore, the Corps should establish criteria for the wetland restoration that will provide shallow water especially during the spring, early summer, and fall months.	See response to previous Fish and Wildlife Service Comment beginning “Borrow areas and wetland mitigation areas should be irregular in shape and have an irregular bottom...”
U.S, Fish and Wildlife Service	Because it appears that no forested areas will be impacted in constructing the proposed project, we believe that any potential impact to the Indiana bat would be insignificant and therefore conclude that the project is not likely to affect this species.	Noted.
Cheryl A. Chrisler Water Resources Protection Branch United States Environmental Protection Agency 726 Minnesota Avenue Kansas City, Kansas 66101	The construction of levee unit L142 through approximately 10 acres in the vicinity of former Cedar City containing a deed restriction in counter productive and sets a troubling precedence <i>[sic]</i> .	The City of Jefferson City, the State Emergency Management Agency, and the Federal Emergency Management Agency have coordinated a mutually acceptable solution to allow the City to accomplish its responsibilities to provide all lands, easement, rights-of-way, relocations and disposal areas necessary to construct the Unit L142 NED Plan.
United States Environmental	The Corps has failed to consider the	See similar comment above from USFWS. CEQ definition does

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Protection Agency	cumulative impacts on the water resource, which is the Lower Missouri River and the wetlands that are hydrologically connected [to] the river.	not place specific parameters on spatial boundaries for cumulative impact assessment. The boundaries for the analysis are at the discretion of the Agency.
United States Environmental Protection Agency	Although the Corps does not believe that this project will lead to increased development of floodplain, EPA disagrees with this conclusion.	Noted.
United States Environmental Protection Agency	...the Corps' analysis does not comply with the §404(b)(1) guidelines in that no determination was made of secondary effects on the water resource.	Appendix G contains the Draft 404(b)(1) and addresses secondary effects of the NED Plan.
United States Environmental Protection Agency	Because levee construction is not a water-dependent activity, a practicable alternative is presumed to exist. A "practicable" alternative is available and capable of being done in terms of cost, technology and logistics in light of the basic project purpose.	Levee construction may not be a water-dependent activity, but flood damage reduction is. We have to put the flood control works in the path of the floodwater or they don't work.
United States Environmental Protection Agency	Practicable alternatives, as demonstrated in the 404(b)(1) Guidelines should be thoroughly evaluated in the following order: First, can the impacts to wetlands be avoided, and second, can impact to the wetlands be minimized? If less damaging practicable alternatives are available to the applicant, the permit must be denied.	Noted, this was addressed in the GRR, EA and 404(b)(1). The Corps followed the guidelines, and did avoid, minimize and mitigate, in that order.
United States Environmental Protection Agency	Because practicable alternatives to levee construction are presumed to exist, alternatives that would minimize impacts to wetlands should be considered.	We considered relocation of the flood-damageable development and found it grossly impractical as well as unacceptable to the non-Federal interests. Accordingly, levee construction is the only practicable alternative to reduce future flood damages.
United States Environmental Protection Agency	The City of Jefferson City should also consider developing a Watershed Management Plan that incorporates non-structural floodplain management.	Within one year of completion of the levee construction, the non-Federal sponsor must complete a floodplain management plan for conditions with the project in place.

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United States Environmental Protection Agency	We must recommend denial of the project until further information is provided by the applicant regarding cumulative and secondary impacts on the Lower Missouri River. This information is required under §230.11 of Subpart B of the Guidelines to satisfy conditions of compliance.	See comments above, both issues were addressed in the GRR/EA and Draft 404(b)(1) evaluation.
United States Environmental Protection Agency	We also recommend that the Corps work with FEMA, the City of Jefferson City, and other state and federal agencies to find alternatives that do not run counterproductive to the floodplain management strategies that have already been put in place in the vicinity of the old Cedar City.	Concur.
Gary Thomas Assistant District Engineer Missouri Department of Transportation P.O. Box 718 Jefferson City, MO 65102	MoDOT would like to discuss the proposed levee design details related to the closing of highway Route 94, Route 63 and Route 54 that lead into and out of Jefferson City, Missouri	The frequency and duration of road closures due to floods will be reduced, though perhaps not entirely eliminated, with construction of the NED Plan. Once we begin the plans and specifications phase of the project, all design details as relating to MODOT facilities will be fully coordinated.
Missouri Department of Transportation	We would also like to explore all possible levee design scenarios to ensure that traffic is maintained safely on the effected <i>[sic]</i> highway as long as possible.	Coordination with MoDOT resulted in selection of a plan that incorporates all cost-effective features to reduce the frequency and duration of road closures due to Missouri River floods. Once we begin the plans and specifications phase of the project all design details as it relates to MoDOT facilities will be fully coordinated.
Missouri Department of Transportation	There is also concern of the affect <i>[sic]</i> the proposed levee system will have on the highway system on the south side of the river.	The flood threat to transportation arteries as well as any other damageable development on the south or right bank of the Missouri River will be considered in a separate, independent study. The effect of Unit L142 on flood profiles is thoroughly discussed in the GRR. The impact to the 1-percent chance event on the right (south) bank is no greater than 0.1' increase as a result of the L142 levee unit.
John Broerman Haslag Thermogas	Concerns about the additional water that would flood my propane plant	The proposed L142 levee unit follows all Federal, State and Local requirements pertaining to construction in the floodplain. For the

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HCR 64, Box 91 Loose Creek, Missouri 65054		10 and 2-percent chance exceedance flood events, the impacts are negligible. For the 1-percent chance exceedance event, the water surface elevations upstream of the project increase between 0 and 0.2 feet. For the 0.2-percent chance exceedance flood events, the increase in water surface elevation increases from 0.1 and 0.3 feet.
John Broerman	...the proposed super levee would be built to protect the interchange of Highways 63 & 54 without providing any protection to Highway 63 beyond a mile from this interchange	The levee is being built to protect flood damageable development already located in the floodplain. We acknowledge that transportation interruptions will be reduced once Unit L142 is in place. The development of the proposed plan optimizes the net annual benefits. It is not feasible to move the levee upstream simply to protect transportation routes.
John Broerman	Once the super levee is built, the Army Corps of Engineer <i>[sic]</i> will in essence abandon the present levee systems in place.	The Capital View levee is owned and operated by the Capital View Levee District. The future of that levee will be at the discretion of the levee district. The eligibility of the Capital View Levee District to receive future assistance under the PL84-99 program will be jeopardized. Jefferson City has advanced a proposal to mitigate the loss of PL 84-99 assistance by the Capital View Levee District.
John Broerman	Why can't the levee be built to protect all the business and landowner in the flood plane <i>[sic]</i> instead of the chosen few that will be inside the super levee?	The Selected Plan was chosen in cooperation with the non-Federal sponsor as the plan that produces the maximum net benefit consistent with the sponsor's requirements. Protection of additional areas was not recommended and could only be included at 100-percent non-Federal cost.
John Broerman	Why isn't the levee extended up-stream to the area of Cedar Creek where Highway 63 starts to rise and protect the entire area.	See preceding response to the comment beginning "Why can't the levee be built to protect all the business..."
John Broerman	If you build the super levee 43.9 feet tall, how much more water will the land and business owners have to fight the next time it floods?	See preceding response to the comment beginning "Concerns about the additional water that would flood my propane plant..."
John Broerman	Why are you trying to save the Jefferson City Airport when we have a nice regional airport not 15 miles up Highway 63 in Boone County?	Our studies are based on the premise that the airport will continue to operate with or without Unit L142, but that, without Unit L142, it would continue to experience recurring flood damage. We based our conclusion on the future viability of the airport on information provided by airport property owners, Jefferson City

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		officials, Missouri Department of Transportation officials, and officials from the Federal Aviation Administration.
John Broerman	My company pay's [sic]and levee fee's [sic]the rest of the land and business owners in the effected [sic] area. Why are we excluded from the government protection of the new levee?	See response to Mr. Broerman's comment beginning "Why can't the levee be built to protect all the business..."
John Broerman	Why can't the present levee system be raised 5 or 10 feet? It wouldn't protect from all floods, but would cut down on the frequency of the flooding	See response to Ms. Richard's comment beginning "Why not utilize existing structures for the base..."
John Madras Missouri Department of Conservation P.O. Box 180 Jefferson City, Missouri 65102-0180	We believe that all efforts should be made to minimize the removal of acreage from the floodplain.	See response to Mr. Broerman's comment beginning "Why can't the levee be built to protect all the business..."
Missouri Department of Conservation	We concur that flood protection for the airport, the ABB plant, and the sewage treatment plant merit deposition into special aquatic sites. Therefore, the impacts of this project should be limited to those under Alternative 9.	Environmental Impacts are nearly equal between alternative 9 and the NED plan.
Missouri Department of Conservation	We understand that there is a margin of error built into the final numbers in the document, in which case the flood effects on the opposite bank could possibly be greater than portrayed.	Correct. The planning for Unit L142 uses estimates of conditions as far as 50 years into the future. Ignoring the uncertainty in these estimates would be irresponsible.
Missouri Department of Conservation	It appears to us that public policy in this regard is based upon old assumptions in flood control that are no longer automatically accepted because it has been found that they are not necessarily in the long-term public interest.	Established and widely accepted public policy is to build the projects that meet the current justification criteria for Civil Works project new starts. Unit L142 has been evaluated using the most modern techniques and criteria. Contingent on the availability of funds, construction of the unit is wholly consistent with public policy.
Missouri Department of Conservation	However, this project seeks to reverse that policy by renegotiating buy-out contracts that	See response to the Fish and Wildlife Service comment beginning "The Corps should redesign the western section of levee..."

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	provided that levees and other non-recreational structures should not be constructed in these buy-out areas. Extending the levee, as described in the preferred alternative, would allow for more development in the floodplain.	
Daniel J. Witter Policy Coordination Chief Missouri Department of Conservation P.O. Box 180 Jefferson City, Missouri 65102-0180	We are concerned with the lost floodway conveyance when L142 is constructed. Can mitigation for this loss be initiated in the project vicinity or at some other location? We envision purchasing from willing sellers tracts where levees could be set back, lowered or breached to increase the floodway along the Missouri River.	The proposed L142 levee unit is in full compliance with all Federal, State, and Local floodplain regulations. Our hydraulic modeling indicates that overbank conveyance of large floods is minimal in the vicinity of Unit L142.
Missouri Department of Conservation	We look forward to our agency staff participating in future discussions pertaining to this project, as we are aware that wetland loss mitigation as discussed in PN 98-01206 is partially the result of our involvement in this matter.	Concur. Coordination for the Mitigation area will continue through the design and construction stages.
Paul J. Puricelli Stone, Leyton & Gershman 7733 Forsyth Boulevard Suite 300 St. Louis, Missouri 63105	The proposed levee would contravene deed restrictions applicable to property previously acquired for flood relief with FEMA funds	See response to the Fish and Wildlife Service comment beginning “The Corps should redesign the western section of levee...”
Paul J. Puricelli	The proposed levee jeopardizes the continued availability of federal matching funds for the maintenance of existing levees	Construction of Unit L142 would likely make part of the Capital View Levee ineligible for emergency repairs under the authority of Public Law 84-99. The City of Jefferson City has advanced a proposal to mitigate the loss of PL 84-99 assistance by the Capital View Levee District.
Paul J. Puricelli	The Report fails to consider the environmental and financial impact on properties outside the levee both upstream, downstream and in Jefferson City proper	Scientific analysis of the project indicates negligible impacts to areas upstream, downstream or across the Missouri river. This is discussed in the GRR/EA from both an environmental and Socio-economic perspective.
Paul J. Puricelli	In addition, we join in the suggestion made by	See response to Mr. Broerman’s comment beginning “Why can’t

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	several speakers that the land encompassed by any levee should be expanded to include the Property and neighboring tracts.	the levee be built to protect all the business...”
J. Brian Griffith Vice President and General Counsel MFA Incorporated 201 Ray Young Drive Columbia, MO 65201-3599	MFA wishes to go on record as supporting the proposed levee.	No response required.
J. Brian Griffith	MFA would note that not only are MFA’s (and its farmer-owners’) interests at risk, but also those of the airport, highway, and other businesses within the proposed protected area.	Concur.
Thomas F. Stewart General Manager Hotel DeVille 319 West Miller Street Jefferson City, Missouri 65101-1623	...concerns arose that cause me to urge you to consider the possibility of a flood gate or other options for protection from backwater flooding for Jefferson City on the south side of the river	See response to Mr. Salamone’s comment “Backwater flooding of Wears Creek on south side.”
Thomas F. Stewart	...a flood of magnitude which the proposed levee would protect, would increase backwater flooding that would close Highways 50 and 63, as well at the Truman Building and the Department of Health Laboratory while eliminating all state parking serving both buildings	See response to Mr. Broerman’s comment beginning “...the proposed super levee would be built to protect the interchange...” Additionally, the Corps, State of Missouri, and Jefferson City are exploring opportunities to reduce flood damages in the Wears Creek basin.
James H. Beck Chairman, Board of Supervisors, Capitol View Drainage District 1811 St Marys Blvd Jefferson City, MO 65109	The General Reevaluation Report for the L142 project raises a number of questions which lead to our opposition to the project. The report completely ignores the negative economic effects and the effects to the flood plain of abandoning the existing Capitol View Levee.	Construction of Unit L142 would likely make part of the Capital View Levee ineligible for emergency repairs under the authority of Public Law 84-99. The City of Jefferson City has advanced a proposal to mitigate the loss of PL 84-99 assistance by the Capital View Levee District.
James H. Beck	The report minimizes the value, reliability and	The report fully addresses the formulation, evaluation, and

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Chairman, Board of Supervisors, Capitol View Drainage District 1811 St Marys Blvd Jefferson City, MO 65109	protection provided by the existing levee while exaggerating the benefits of the proposed levee	recommendation of the proposed L142 levee unit based on the “ <i>Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies</i> ” dated February 3, 1983. This is the authority under which the Corps must follow for implementation of projects like the L142 levee unit.
James H. Beck	The report exaggerates the benefits to key properties within the area. It claims benefits to traffic flows over U S Highways 63 and 54 when in fact there is little or no benefit.	Comment Noted. We fully understand that the benefit to traffic flow is minimal compared to the other benefits obtained by the other facilities.
James H. Beck	The report ignores the effects of increased flow velocities, caused by the project, to land surfaces, other levees and structures in the area adjacent to and downstream from the project.	The proposed L142 levee fully complies with all Federal, State, and local floodplain regulations. The levee is on the outside of the FEMA regulated floodway. Appendix B of the GRR, fully documents the hydraulic conditions (stage and velocity) for the without and with project conditions. The effects of the proposed L142 levee on the 1-percent chance event has less than a 0.1 foot increase in water surface elevation and less than a 0.6 foot per second increase in velocity. These minimal changes in calculated velocity and water surface elevation are less than the standard errors in determining these values.
James H. Beck	The report fails to adequately address the evacuation of storm water from the project area through the adjacent unprotected agriculture area.	Upon completion of the constructed L142 levee unit, the non-Federal sponsor, Jefferson City, Missouri, will have a Floodplain Management Plan (FPMP) which addresses the management, land use and zoning in the project area. The GRR has incorporated several drainage structures, which will be used to allow water to flow from the levee interior to the river in times of low water. In the plans and specification phase of the project development, the exact details will be defined.
James H. Beck	The project will reward existing development and will stimulate additional development within the area.	An Executive Order (EO) 1988 analysis was performed to assure that only the necessary floodplain was acquired while maintaining economic efficiency, environmental quality and social well being.
James H. Beck	Stimulation of flood plain development runs counter to the public interest and current preferences in flood plain management.	We support the preservation of natural floodplain values and discourage new floodplain development whenever a practicable alternative is available. Structural flood protection such as Unit

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		L142 reduces flood damages from recurring floods up to the design magnitude. Undeveloped open space is essentially free from flood damage for any magnitude of flood event.
James H. Beck	The alignment of the proposed levee and a large part of the justification is based on a cost benefit analysis which is inappropriate and also contrary to the public interest.	The report fully addresses the formulation, evaluation, and recommendation of the proposed L142 levee unit based on the <i>“Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies”</i> dated February 3, 1983. This is the authority under which the Corps must follow for implementation of projects like the L142 levee unit.
James H. Beck	Raising Capitol View Levee to provide additional protection and to prevent damage caused by lesser floods has been considered from time to time. A relatively small increase in levee height could have been accomplished at minimal cost and with little effect on the flood plain and would have prevented flooding on several occasions. Any consideration of raising the existing levee has been abandoned because of flood plain restrictions and permitting requirements.	Raising Capital View levee is not an option due to its location within the regulatory floodway.
James H. Beck	Capitol View Levee has been much more reliable and protects to higher river stages than suggested in the corps Reevaluation Report for the proposed project.	The GRR uses historical data, geotechnical analysis, and experience from Jefferson City, Missouri to give a reference point to when the reliability of the Capital View Levee is compromised.
James H. Beck	Historical Flood Events (page 5): The report states that “...the Capitol View Levee has approximately a 50 percent chance of failure at elevation 549.1 NGVD based on the Jefferson City gage.” 549.1 NGVD equates to a gage reading of 29ft. Capitol View levee has never failed or overtopped at 29ft river stage. Capitol View levee overtops at a stage in excess of 29.5ft. and probably closer to 30" [sic] river	See previous response to comment beginning “Capitol View Levee has been much more reliable...”

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	stage.	
James H. Beck	Table 1 (page 6) The table on page 6 of the reevaluation report implies that flooding occurred in 1985, 1996, and 1998. Capitol View Levee did not breach or overtop in any one of those years. No flooding occurred in the protected area.	See response to preceding comment beginning “Capitol View Levee has been much more reliable...”
James H. Beck	Properties Subject to Damage (page 12): The Reevaluation report states: "If the agricultural levee holds until it overtops, usually airport personnel have enough time to evacuate the aircraft, but if the levee breaches (as is frequently the case) Capitol View Levee has never breached before overtopping. As is the case with most properly maintained levees breaching occurs after overtopping as a result of erosion caused by water flowing down the inside slope of the levee.	Comment Noted. Report text was changed accordingly.
James H. Beck	The Corps reevaluation report omits any discussion of a significant consequence of the L142 project. Capitol View Drainage District has been informed by the Corps that once the proposed new levee is in place, the existing Capitol View Levee will be eliminated from the corps flood rehabilitation program and as a result will no longer be eligible for Public Law 84-99 cost share assistance. Elimination from the Corps rehabilitation program is a direct result of the L142 project and is contingent on its completion.	The first portion of the Section 6.0 Plan Implementation, is dedicated to the PL84-99 program and applicability to the both the Capital View Levee District and the proposed L142 levee unit. Additionally, the Environmental Assessment addresses the issues and options available.
James H. Beck	The Loss of Public Law 84-99 flood rehabilitation assistance, coupled with the loss of financial support from landowners within the L 142 area and the loss of assessments	The landowner for the lands used for borrow will be fairly and reasonably compensated. While, it is acknowledged that the Capital View Levee District will likely no longer be eligible for the PL84-99 program the Corps of Engineers, State of Missouri

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	<p>from land that will be used for borrow area, will put the future of the existing Capitol View Levee in doubt. The Cost of repairing damages from major floods will become prohibitive for the landowners and businesses within the area currently protected by Capitol View Levee, but outside the new L142 project. Being dropped from the Public Law 84-99 program will likely result in complete abandonment of Capitol View Levee after the first major flood damage.</p>	<p>and Jefferson City, Missouri are working on alternatives that may assist the landowners in the project area.</p>
James H. Beck	<p>Negative Economic Impact: The negative economic impact to the area outside the proposed new levee is substantial. Landowners in the area have already experienced significant financial loss because of decreasing land values in anticipation of the L142 project. Without flood protection, the area will loose \$300,000 to \$400,000 in agricultural production annually. Business in the area will be forced to close for significantly longer periods due to very frequent flooding. One business is a major supplier of sand and construction materials for the entire Central Missouri Region. The increased down time for that business would have major economic impact on the entire Central Missouri area.</p>	<p>The economics section of the GRR that addresses the Regional Economic Development (RED) Impacts has been reviewed and modified to address the negative economic impact.</p>
James H. Beck	<p>None of the negative impact to the area outside the proposed L142 project is considered in the Revaluation Report.</p>	<p>The economic section that addresses the Regional Economic Development (RED) Impacts has been reviewed and modified to accurately address the negative economic impact.</p>
James H. Beck	<p>Impact on the Flood Plain: Also not considered in the Reevaluation Report is the potential for significant impact on the flood plain, river flows and water levels, especially at high river levels, brought about by the abandonment of</p>	<p>Abandonment of the Capital View levee would provide more cross-sectional area for flow at a lower stage, thus decreasing velocities in both the channel and the overbank. There would be less scour due to levee failure/breaches and sediment deposited in the overbanks would be more evenly distributed instead of the</p>

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	Capitol View Levee.	large sand splays which can result from levee failures/breaches. Structures removed from the river's edge are normally positive for the flood plain.
James H. Beck	Currently, at river stages above 30ft, water flows through and over the top of the existing levee into a relatively clear, unobstructed floodway. Flood waters move freely downstream over relatively open farmland. The abandonment of Capitol Views Levee will substantially change current conditions. Agriculture will no longer be economically feasible in the area. Farmland will be abandoned to annual vegetation and very quickly to a heavy growth of young trees. Heavy vegetation slows water currents and encourages the dropping of silt. In a relatively short time period, the combination of heavy vegetation and frequent flooding will cause the once open floodway to become clogged with trees and sediment.	Assuming that the Capital View Levee is abandoned, land riverward of the proposed L142 levee unit would eventually have additional vegetation. The effects of this vegetation can have positive and negative impact on the water surface elevations. The additional vegetation could slow the velocities and increase river stages marginally or the additional area for conveyance and storage could reduce the water surface elevations. The hydraulic analysis has considered the variable when addressing the overbank conveyance.
James H. Beck	Floodwater will no longer flow freely through the area. Floodwater will move at a slower speed through a floodway with less capacity. The result will be a blocking effect, especially at high river levels. Water levels on both sides of the river and upstream could be forced upward. There is in fact no certainty that river stages would not be forced upward to levels that would endanger the proposed L142 levee.	See the response to the previous comment.
James H. Beck	The Corps recognizes the effects of sedimentation and proliferation of vegetation on river stages and stage trends in general (System Wide Analysis of Stage Trends, page 27), but fails to consider there [<i>sic</i>] effects	The hydraulic analysis in Appendix B addresses the changed model sensitivity to roughness coefficients, change in roughness, sensitivity to private levees, and model sensitivity to overbank changes. The analysis on model sensitivity to private levees showed that private levees adjacent to the river bank can raise the

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	relative to abandonment of Capitol View Levee.	profile from 0 to 2.3 feet depending on the frequency of event.
James H. Beck	The Reevaluation Report for the L142 project exaggerates the benefits to the area protected by the new levee. The protected area, which includes both private and public development, will certainly be benefited, but not to the extent implied by the report.	The report fully addresses the formulation, evaluation, and recommendation of the proposed L142 levee unit based on the “ <i>Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies</i> ” dated February 3, 1983. This is the authority the Corps must follow for implementation of projects like the L142 levee unit.
James H. Beck	ABB Plant (page 11): The ABB plant has never actually been flooded. Only one time in recorded history has the river level reached the ground level of the ABB plant. That was during the record flood of 1993. Even in 1993, plant personnel were able to protect the facility by taking temporary measures, which is not uncommon and is in fact expected by people who build in flood plains. In contrast, if this project in completed and Capitol View Levee abandoned, the area (green shaded) outside the L142 area will flood annually.	Comment Noted.
James H. Beck	The discussion about ABB on page 11 of the report, refers to a temporary levee to plug the highway 54 underpass. The report is not clear, but the assumption is that the referenced underpass is the Katy Trail underpass. The report suggests that the temporary levee has not been allowed since 1993 because of potential damage to highway 54. A discussion on the following page (page 12) suggests that water flowing through the unplugged underpass in 1993 resulted in substantial damage to aprons with the potential for doing much greater damage to highway 54 had flood waters not receded. These two discussions,	The economics appendix to the GRR discusses the rationale for using the condition for which the benefits to the ABB plant are calculated. In the 1993 flood event, significant damage was done to the underpass, and the Missouri Department of Transportation has very clearly expressed that it will not allow what happened in 1993 to happen in the future. Consequently, the ability to plug the gap on the Katy Trail underpass is not considered a viable option, and the most probable future condition in the project area includes passage of floodwaters through the open underpass.

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	<p>when considered together, are confusing at best. Both seem to indicate that plugging the underpass would be beneficial, but apparently the Highway Department is opposed. If the Highway Department is opposed to plugging the underpass, the discussion about water flowing through the opening causing damage is not valid.</p>	
James H. Beck	<p>The obvious solution seems to be to reroute or put a stoplog structure across the Katy Trail and plug the underpass permanently. ABB would get the additional flood protection and the threat of flood damage from water flowing through the gap doing damage to the highway would be eliminated. .</p>	<p>See the response to the previous comment.</p>
James H. Beck	<p>Missouri National Guard Facility (page 11): The National Guard building has been flooded only one time since its construction. That was in 1993 when the river stage at Jefferson City exceeded all previous records by 5ft. 'Pile Guard building had only 1.5ft of water on the ground floor in 1993. The likelihood of the National Guard building flooding frequently under current conditions is remote.</p>	<p>Comment Noted.</p>
James H. Beck	<p>Missouri Farmers Association (page 12): The Reevaluation Report states that flooding affects most of the plant at an elevation of 548.0 ft. NGVD (547.8 ft., NGVD at the gage)" That statement is not true. 547.8 ft., NGVD is equivalent to a gauge reading of 27.7ft. The MFA facility does not flood until Capitol View Levee overtops at approximately 30ft river stage. Benefits to MFA will also be limited during major flood events because of</p>	<p>The ground elevation at the MFA plant is generally 548.0 feet, NGVD which corresponds to a water surface of 547.8 feet, NGVD, at the gauge. Floor elevations vary through the plant, but are generally 2 feet above ground or about elevation 550.0 feet, NGVD. We have clarified the language in the GRR to reflect this information. We acknowledge that residual flooding of the MFA plant would occur with the NED Plan in place, and we have calculated flood damage reduction benefits in view of the potential for residual flood damages.</p>

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James H. Beck	<p>unevacuated storm and seep water in the area.</p> <p>US Highway 63: The Reevaluation Report makes reference on page 12 and again on page 54 to protecting the Jefferson City to Columbia traffic corridor and the Jefferson City/Columbia / I70 connection. The L142 project will in fact have no positive effect on traffic flows between Jefferson City and Columbia. Highway 63, which is the Columbia / Jefferson City connector will continue to flood outside the area protected by the L142 project. During the 1993 flood, Highway 63 closed due to flooding just north of the proposed project well before the combined section of Highway 54/63, which is the only part of Highway 63 in the L142 project area, closed. The photo on the cover of the Reevaluation Report from the 1993 flood shows water flowing over the top of highway 63 outside the proposed L142 project. There is in fact a good possibility that Highway 63 could be subject to increased damage and longer closings because of the blocking effect of the L142 project.</p>	<p>Highway 63 will not be provided additional flood damage reduction as part of the proposed L142 project. The L142 project will lessen the amount of time in which Highway 54 is closed during rare events. Additionally, The L142 project will protect the Highway 54 embankment from flooding and therefore damage from scour as a result of overflow velocities. We have revised the GRR discussion of the Columbia / I-70 / Jefferson City traffic to clarify the effectiveness of the NED Plan.</p>
James H. Beck	<p>US Highway 54. The benefit to Highway 54 traffic flows is also exaggerated. The L142 project plan calls for a stoplog structure at the north approach to the Missouri River bridge. Stoplog structures must be closed at high river stages and when stoplog structures are closed, traffic flow is halted until the structure is removed. The Reevaluation Report (page 58) indicates that the US Highway 54 stoplog structure would be used approximately 1 year</p>	<p>Comment Noted. The transportation benefits afforded by the proposed L142 project are minimal, yet not negligible. Additionally, benefits are gained by protecting the Highway 54 highway embankment from scour due to overbank velocities.</p>

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	<p>in 500 and that in 1993 the structure would have been closed for 3 to 4 days. The actual closing time in 1993 was from 5:20 pm. on July 29 until 6:00am on August 3rd, for a total of 4 days, 12 hours, and 40 minutes. With the L142 project in place Highway 54 might gain a maximum of 1 or 2 days open time in every 500 years.</p>	
James H. Beck	<p>It should be noted that the Missouri Department of Transportation, although not actively opposing the L 142 project, has not taken an active roll in support of the project.</p>	Noted.
James H. Beck	<p>The reevaluation report recognizes minimal effect of the L 142 levee on river stages in the nearby area (page 54). The report fails, however to consider and evaluate the effects of increased water velocities which will surely result. When water flows are constricted, the result is either increased velocity or higher water levels in the remaining flow area or a combination of the two. If water levels do not increase, velocity will. Standing or still water regardless of depth does little damage to structures of flow surfaces aside from the initial water damage. Fast moving water causes the damage. The greater the velocity, the greater the potential damage to flow surfaces and structures. The L 142 Reevaluation Report recognizes only minimal effect on water levels and completely ignores the increased velocity in adjacent areas and downstream of the proposed project.</p>	<p>Since changes in velocity both upstream and downstream of the proposed project are minimal, the issue has been adequately addressed. Either the constricted water will accumulate, thus raising the upstream water surface, or its velocity will increase, thus lowering the water surface elevation. But the nature of the flood plain in the area of the proposed project does not meet the criteria for either case. Currently, there is little to no effective flow landward of the proposed levee, therefore, the flows with the project in place will not constrict the flow any more than without the project. There will be little to no change to the water surface elevation or to associated velocities.</p>
James H. Beck	<p>The study does not adequately address storm water drainage from within the project area.</p>	<p>Upon completion of the constructed L142 levee unit the Local Sponsor, Jefferson City, Missouri will have a Floodplain</p>

Commentator	Comment	Response
	<p>The project will , over time, stimulate additional development and hard surface drainage and will concentrate surface water in patterns unlike present conditions. Surface water from within the area cannot be allowed to simply flow into adjacent farmland outside the newly protected area.</p>	<p>Management Plan (FPMP) which addresses the management, land use and zoning in the project area. The GRR has incorporated several drainage structures, which will be used to allow water to flow from the levee interior to the river in times of low water. In the plans and specification phase of the project development the exact details will be defined.</p>
James H. Beck	<p>The Corps of Engineers letter that accompanied the release of the Draft Reevaluation report includes the following statement on page 2. "Increased development as a result of the project is unlikely because demand for land does not threaten to out pace the existing supply outside the flood plain in the region That statement is simply not true. The proposed project includes approximately 900 acres of farm land, much of which will become prime for development if the L142 project is completed. Even considering flight paths and clear zones; level land surfaces, proximity to Jefferson City and the airport, and ready access to major highways will make a large portion of the area very attractive for immediate development.</p>	<p>The project has been formulated to reduce the flood damages to existing facilities and not provide areas for future development. The project formulated balances the need for environmentally acceptability, cost effectiveness and social well being. As a result of clear zones for the airport, lands needed for interior drainage, and lands that are currently deed restricted for construction, the land available for development is much less than might be expected.</p>
James H. Beck	<p>The cost benefit analysis used by the Corps to determine which projects are worthy of funding should be re-evaluated on a scale beyond the L142 project. A discussion of the cost benefit question is pertinent here because of the emphasis placed on the "favorable" cost benefit ratio in justifying this project.</p>	<p>The report fully addresses the formulation, evaluation, and recommendation of the proposed L142 levee unit based on the <i>“Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies”</i> dated February 3, 1983. This is the authority under which the Corps must follow for implementation of projects like the L142 levee unit. Re-evaluation of the existing guidelines for Corps of Engineers Civil Works projects is beyond the scope of this effort.</p>
James H. Beck	<p>Cost benefit justifications miss the mark in justifying new projects such as the L142</p>	<p>See the response to the US Fis and Wildlife Service comment beginning “We should be working to restore wetland areas and</p>

Commentator	Comment	Response
	project and also in determine which levees will be eligible for continued cost share assistance under Public Law 84-99 –especially considering current thinking about overall flood plain management.	floodplain values along the Missouri River...”
James H. Beck	Cost benefit justifications stimulate and reward flood plain development in spite of broader policies to discourage flood plain development. Levee districts that conform to national goals by not encouraging flood plain development are penalized. Levee and drainage districts that meet cost benefit requirements receive a full share of assistance. Districts that do not meet requirements receive nothing. Districts either do or do not qualify. There is no continuum.	Comment Noted. Eligibility criteria for the Public aw 84-99 emergency assistance program are not within the scope
James H. Beck	Cost benefit justifications also funnel federal dollars into those districts which can best afford to pay for repairs, improvements and new projects themselves. The factors that improve cost benefit ratios - ie development and infrastructure are the same factors that increase local valuations and tax bases. Rich districts with lots of development get all the assistance. Poor districts with no development get nothing.	The report fully addresses the formulation, evaluation, and recommendation of the proposed L142 levee unit based on the “ <i>Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies</i> ” dated February 3, 1983. This is the authority under which the Corps must follow for implementation of projects like the L142 levee unit.
James H. Beck	The L142 project is a prime example of the effect of cost benefit considerations. The location of the levee was driven in large part by cost benefit considerations. The alignments [<i>sic</i>] chosen is the one which results in the best cost benefit ratio. The importance placed on the cost benefit ratio also leads to exaggeration of the benefits.	Comment Noted.

Commentator	Comment	Response
James H. Beck	Generally, it would be very easy to make the argument that the cost benefit analysis should work in reverse. The higher the cost benefit ratio, the less government assistance. A reverse cost benefit scenario would in fact discourage flood plain development and it would not penalize responsible levee districts who more closely reflect the public interest.	We perform a benefit-cost analysis according the principles and guidelines established by the President’s Council for Water Resources for use by all Federal agencies in evaluating the benefits and costs of water and related land resource projects. While projects that do not return average annual public benefits greater than the average annual cost are generally not recommended for implementation, a positive benefit-cost ratio is only one of several factors that determine whether we recommend project implementation.