1. What are the limitations of and/or problems with Maclay Bridge?

Maclay Bridge is considered functionally obsolete and fracture critical according to a 2011 Montana Department of Transportation Bridge Inventory.

- A fracture critical bridge contains a deteriorating design element that will cause the entire structure to fail. In this case, two trusses on the main span are the fracture critical design element. If one of the trusses should fail, the remaining truss cannot support the load or the shape of the entire structure and it would collapse. Modern bridge design incorporates redundancy in structural elements to avoid total bridge failure in the event of one element failing.
- In addition to the design deficiencies, this bridge's piers are located in the river channel on unknown materials. The east approach to the original bridge was washed out by flooding in 1963, and since then the channel has been altered with the deposition of material upstream of the bridge. Changing the shape of the channel changes stream flow. Increased water velocities remove material from the stream bed. If too much material is washed away, the piers in the channel will become unstable.

2. What does the scour hole under the bridge tell us?

As mentioned above, the channel shape has been altered since 1963. Increased water velocities have removed stream bed material from underneath the bridge and created scour holes. Scour holes are common at bridge crossings and are a function of streambed properties and hydraulic profile. Scour holes develop due to changing channel conditions and threaten the integrity of a structure by undermining its foundation. Generally, scour susceptibility can be predicted and is addressed in the design process. Since channel scour was not part of the original design in the 1940s, the current channel shape and configuration are situated on an unstable stream bed.

3. Is the bridge safe?

Yes, common passenger cars and some service vehicles can cross the bridge safely. Type 1 fire engines cannot legally cross, which adds two minutes and 16 seconds to response times in emergency situations.

4. When will a new bridge be required and built?

A bridge is required to be closed when the capacity is less than 3 tons (compared to the current 14 ton limit for Maclay Bridge). If nothing is done structurally, the bridge will deteriorate until the closure requirement is met and a new bridge will be necessary. Missoula County would be remiss in its obligations to the public if no action was taken. In its current state, Maclay Bridge cannot carry the traffic in this area, both in the number of vehicles and in the size of the vehicles.

5. Will the old bridge be kept for pedestrians and horses and bikes?

That question is premature as that decision has not been made. The decision about whether to determine future uses is a function and outcome of the public planning process.

6. What is the State's process in eventually building, or not building, a bridge?

Missoula County is working on a memorandum of agreement with the Montana Department of Transportation to perform a Pre-NEPA study, also referred to as a "feasibility study." The conclusion of which will determine our next course of action.

7. Will an EIS be required?

Since Federal funds are involved, the decision on the level of environmental analysis is determined by the Montana Department of Transportation and the Federal Highway Administration.

8. Does the County have any role in determining the design and size of the bridge?

Yes. The intent of the memorandum of agreement with Missoula County and the Montana Department of Transportation is to ensure that local voices are heard and acted on and not simply considered.

9. Who will decide whether the existing bridge stays or goes?

The final decision will most likely be made by the Board of County Commissioners after the public process has been completed.

10. Shouldn't a needs assessment (Pre-NEPA Study) be done first?

The Montana Department of Transportation has offered to assist with a corridor study and other planning efforts. A corridor study presents future options for decision-makers and the public to consider in future analysis and planning. A corridor study reports on safety deficiencies, surrounding land uses, environmental conditions, costs, and public sentiment. The study will present future choices for decision-makers and the public to consider in future planning and analysis efforts.

11. Will there be a public process?

Yes. Missoula County intends to conduct a public planning process to evaluate available options for the bridge.

12. How does this bridge project fit into the overall development plan (growth policy) for the county?

The Maclay Bridge project meets the Missoula Growth Policy General Local Services and Facilities goals and objectives. The County and the State will continue meet the Target Range Neighborhood Plan bridge maintenance recommendation. Although the Neighborhood Plan did not identify a need for a new bridge, the numerous deficiencies that impact the bridge structure and safety are compelling an analysis to evaluate options for future bridge replacement within the project area.

13. Are there plans for a bypass?

No. At the request of some citizens in 2003, the metropolitan planning organization (MPO) studied a bypass as part of the long range transportation plan update. The "bypass" was discarded from further consideration by the MPO at that time and will not be included or considered in this planning process.

14. Does Missoula County have the required right of way?

The planning process will evaluate proposed bridge locations, rights of way needs, safety, and other quality of life issues to arrive at a final recommendation.

15. What would the speed limit be in the proposed study area?

By statute, public roads are signed at 35 mph. However, under certain circumstances speed limits can be reduced after performing an engineering study justifying the reduction.

16. What funding methods will be used to conduct a planning process?

The Montana Department of Transportation will fund the project with state and federal transportation funds.

17. Are there plans for the Big Flat/Blue Mountain Road from U.S. Highway 93 South to go through to Highway 10?

No. No such alignment is included in the long range transportation plan.

18. What is the traffic count?

In May 2010, the traffic volume was 2,835 vehicles per day, compared to 1,390 vehicles per day in May 1989.

19. What is the problem we are trying to solve?

Maclay Bridge does not provide the necessary access for the residents of the Blue Mountain/Big Flat area. The traffic volume has doubled in the past 20 years and will only continue to increase in the future, causing increased delays and driver frustration. Through the summer, there are increasing conflicts between vehicles and swimmers that jump from and congregate on the bridge. And, as mentioned above, critical emergency response vehicles cannot use this route and add significant response times. A bridge meeting current design standards will eliminate these problems by providing adequate access to an area that has shown significant growth.

20. Why is the county acting on this issue?

The process has a limited amount of federal funding allocated to the off-system bridge program compared to the need. This project was nominated in 2002 and a construction date has not been determined but is likely many years out. The County has dedicated an appropriate amount of resources based on the critical safety concerns posed from this project.

21. Has the federal transportation bill been reauthorized?

No. The federal government has been working under "continuing resolutions" for the last two years since the last transportation bill has expired. Congress is currently working on a new transportation bill. Action is not expected until later in 2011.

22. What is the off system bridge program?

Federal regulations classify on-system and off-system bridges. The difference is whether the structure is located on a functionally classified federal aid route. As an example, the Reserve Street Bridge is considered on-system because Reserve Street is a federal aid route. Maclay Bridge is located on North Avenue which is not a federal aid route and therefore considered off-system.

23. Where will the County get the money for the planning process?

The Montana Department of Transportation will fund the planning process with state and federal bridge funding.

24. Can we taxpayers afford the costs associated with a new bridge?

There are no local funds involved with the project.

25. Will this end up with a special improvement district (SID) for South Avenue residents?

No.

26. Some questions the Pre-NEPA study will answer include:

- What are the lane width standards for the bridge?
- What are the standards for road width?
- What about the ratio of driving to walking/biking infrastructure?
- What is the cost of a new bridge?
- Can the current location be used for a new bridge?
- What will the replacement bridge be like?
- Where will the replacement be built?
- Why is a replacement being considered?