

FLATHEAD COUNTY PLANNING AND ZONING OFFICE
MAJOR VARIANCE PERMIT REPORT (FLV-14-02)
BLACKWOOD/LORANG
FEBRUARY 26, 2014

This is a report to the Flathead County Planning Board and Flathead County Board of Commissioners regarding a request from Rick and Robin Blackwood and Dr. Mark Lorang for a major variance permit to the Flathead County Lake and Lakeshore Protection Regulations (FCLR) for the placement of fill in a wetland site subject to strong wave action, for the protection of shoreline and dock. The project is located on the lakeshore and lakebed of Flathead Lake within the Lakeshore Protection Zone (LPZ).

The Flathead County Planning Board will hold a public hearing and meet to discuss the proposed major variance request on March 12, 2014 beginning at 7:00 P.M. in the 2nd floor conference room of the Earl Bennett Building, 1035 First Avenue West, Kalispell. Documents pertaining to this file are available for public review in the Flathead County Planning and Zoning Office, also located on the second floor of the Earl Bennett Building.

I. APPLICATION REVIEW UPDATES

A. Bigfork Land Use Advisory Committee/Council

The proposed land use is located within the advisory jurisdiction of the Bigfork Land Use Advisory Committee. BLUAC will hold a public hearing to hear this request for major variance to FCLR on February 27, 2014 at 4:00 PM.

B. Flathead County Planning Board This space is reserved for an update regarding the March 12, 2014 Flathead County Planning Board public hearing and review of the proposal.

C. Flathead County Commissioners This space is reserved for Flathead County Commissioners' public hearing and review of the proposal.

II. GENERAL INFORMATION

A. Application Personnel

i. Landowner/Applicant

Rick and Robin Blackwood
2050 Harper Puckett Rd.
Bozeman, MT 59718

ii. Consultant/Applicant

Dr. Mark Lorang
311 Biostation Lane
Polson, MT 59860

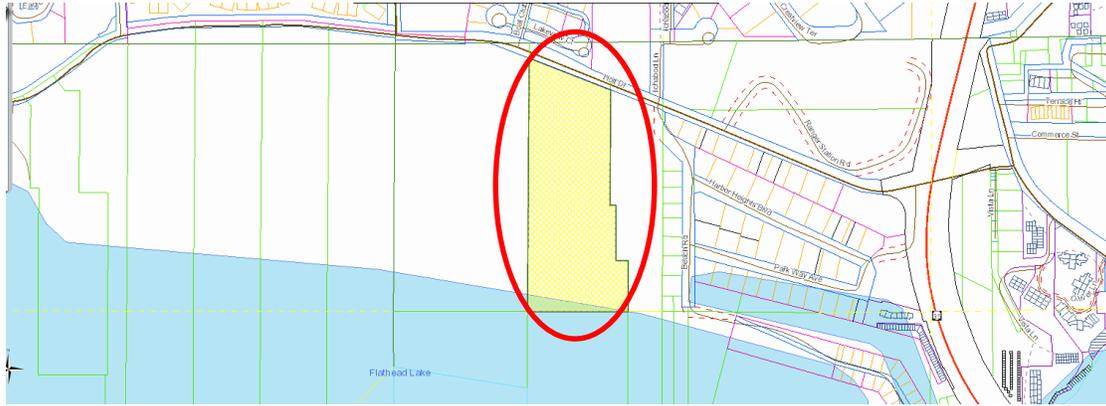
iii. Contractor

RKZ Enterprises
31823 Zavala Lane
Bigfork, MT 59911

B. Property Location and Size

The subject property is located at 240 Holt Drive in Bigfork, MT (see Figure 1 below). The property's shoreline is approximately 400 feet in length and can be legally described as Tract 18AB and 18AB200 in Section 36 in T27N, R20W P.M.M., Flathead County, Montana.

Figure 1: Subject property (highlighted in yellow and circled in red)



C. Existing Land Use(s) and Zoning

The property is located within the 5-acre Suburban Agricultural (SAG-5) zone on the North Shore of Flathead Lake.

The property is a residential development and contains a house, boardwalk with an attached beach house and f-shaped dock. A portion of the property contains a wetland.

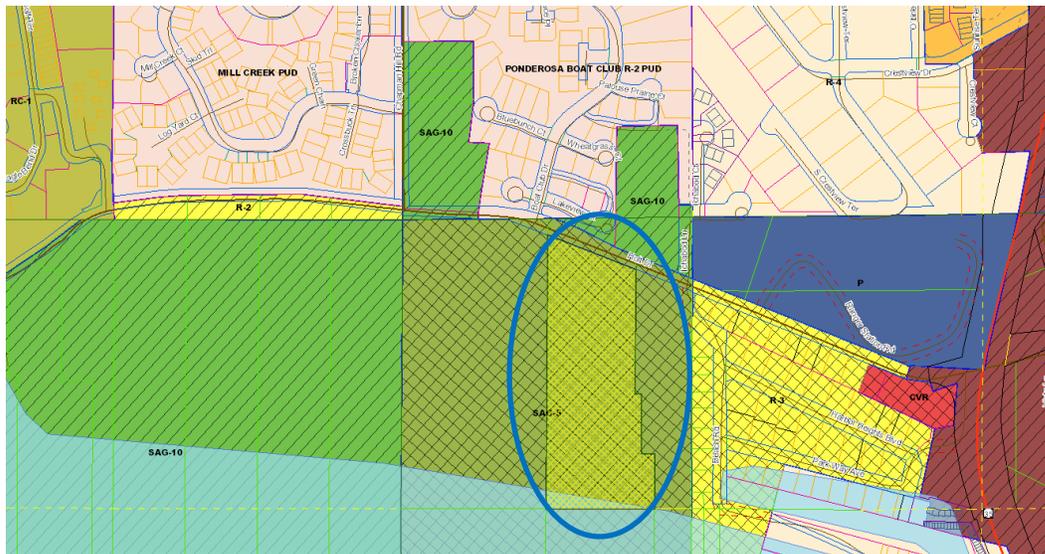
Figure 2: Imagery of existing structures on the subject property



D. Adjacent Land Use(s) and Zoning

The properties located to the west of subject property and on the south side of Holt Drive are SAG-5 and SAG-10, while the property to the east is zoned Residential-3 (R-3). The sites across Holt Drive to the north are zoned SAG-10 and Ponderosa Boat Club R-2 Planned Unit Development (PUD). The general character of the surrounding area is residential.

Figure 3: Zoning surrounding the subject property (highlighted in yellow and outlined in blue)



E. Summary of Request

The applicants request a major variance permit to the Flathead County Lake and Lakeshore Protection Regulations (FCLR) to accommodate the placement of a large amount of fill in the lake and lakeshore protection zone to protect a dock and shoreline from the erosion caused by strong wind and wave action. All construction debris will be removed from the Lakeshore Protection Zone upon completion, and no construction materials will be stockpiled or stored within the Lakeshore Protection Zone. All work will be done at low pool and no equipment will contact the lake.

i. Proposed Variance to Regulations:

The applicant is requesting a permit for a major variance to the following sections of the Flathead County Lake & Lakeshore Protection Regulations:

- Section 4.3(F)(2)(h)(2), Application of rock is not permitted in the following areas: wetlands and sites subject to strong wave action or currents; sites covered predominately by vegetation; or below average low water.
- Section 4.3(F)(2)(h)(5), Maximum fill depth is four to six inches.
- Section 4.3(F)(2)(h)(6), The volume of fill shall not exceed one cubic yard per sixteen lineal feet of lake frontage.

F. Compliance with Public Notice Requirements

Legal notice of the public hearing for this application was published in the February 16, 2014 edition of the Daily Interlake. Notice of Commissioners' public hearing will take place as well.

G. Agency Referrals

Referrals were sent to the following agencies on February 13, 2014:

- Flathead County Address Coordinator/GIS Department
- Todd Tillinger, US Army Corps of Engineers
- Ron Buentemeier, Flathead Conservation District
- Mark Deleray, MT Fish, Wildlife, & Parks
- Marc Pitman, MT DNRC
- Jeff Ryan, MT DEQ
- Kerr Dam (PPL)

III. COMMENTS RECEIVED

A. Public Comments

It is anticipated that any individual wishing to provide public comment on the proposal will do so during the public hearings held by BLUAC, the County Planning Board, and the County Commissioners. The BLUAC hearing is scheduled for Thursday, February 27, 2014 at 4PM. The Planning Board hearing is scheduled for March 12, 2014. Any comments received following the completion of this report will be provided to the Planning Board, Flathead County Board of Commissioners, and summarized during the public hearing by the governing body.

B. Agency Comments

The following is a summarized list of agency comments received as of the date of the completion of this staff report:

- None

IV. DETERMINATION OF NEED FOR MAJOR VARIANCE REQUEST [FCLR Section 5.1(A)(2)]

A request is determined to be a Major Variance when it either deviates substantially from the construction requirements or design standards of FCLR, and/or it creates a major environmental impact, per Flathead County Lake & Lakeshore Protection Regulations Section 5.1(A)(2)(a&b).

a. Determination of Major Variance Involved [FCLR Section 5.1(B)(2)(a)]

The Commissioners affirmed January 21, 2014 that the applicants' request to place a substantially large amount of fill on the North Shore of Flathead Lake was a "variance request deviating substantially" from the FCLR design standards for fill placement. They also felt there was not enough evidence made available addressing the potential adverse environmental impacts associated with the project. The applicants' request for

major variance permit FLV-14-02 is an appropriate request per FCLR because the governing body has determined that this specific request deviates substantially from the FCLR Design Standards and also requires further environmental review.

V. CRITERIA REQUIRED FOR CONSIDERATION

The Review Procedure for Major Variances is outlined in Section 5.1(B)(2) FCLR, defining what information shall be detailed and reviewed in an EIS concerning the project proposal, “prepared by and at the expense of the applicant,” whom in this case is a research associate professor at the Flathead Biological Station. The clarity and completeness of the information provided in the EIS will be evaluated below and summarized with findings of fact.

The General Criteria for a Major Variance states that an EIS shall be prepared by the applicant and submitted with the Lake and Lakeshore Application and Lake and Lakeshore Application for Variance. Subsequently, the request shall be reviewed by the planning board and the governing body will hold a public hearing on the proposal.

a. Description of the Proposed Project [FCLR Section 5.1(B)(2)(b)(1)]

The applicant provides comprehensive and detailed project descriptions (including several visual references) in the section titled, “Description of the Proposed Project” and throughout the EIS. The physical characteristics of the project site and the adjacent lands, the interdependent relationships that make up the North Shore ecosystem (common to the project site as well) and the general conditions that shape the property over time are discussed as comparable to those of the entire North Shore of Flathead Lake.

The erosive processes at this site must be alleviated if property loss is to cease. The applicant states that the North Shore of Flathead Lake has suffered the highest level of shoreline erosion and loss of land compared to any parcel of land in Flathead County and that this severe wetland erosion is the result of an unusually erosive wave and wind process. The applicant explains that there is only one viable method for halting erosion on the North Shore of Flathead Lake, and that method entails the placement of a large volume and depth of fill to combat the erosive processes unique to the project site. The forces that coalesce at this site to produce erosion are both natural and artificial; they exist in the form of 3 foot maximum wave heights, winds from the south and west, and wakes from a high volume of boat traffic. The cumulative effects of the erosive factors compound the erosion, as well. The applicant points out that the aforementioned erosive conditions and factors are common to the entire North Shoreline of Flathead Lake, and therefore it is appropriate to make comparisons between the problems and solutions common to the North Shore and the subject site (as related to documented studies and published research). The sand lake bed at the site is now exposed due to the eroding wetland complex, and the site has become barren, absent vegetation. The applicant describes a method for harnessing the erosive

wind and wave energy that would result in wetland restoration, meaning the erosive processes are channeled to increase the wetland area that is currently eroding.

The method the applicant proposes includes depositing 1465 cubic yards of gravel material along approximately 400 lineal feet of shoreline, at an average depth of 4 feet. By building up the area around the dock and shore, the applicant expects the damaging waves to break further offshore, meeting the primary objective of staying the erosion (and consequently property loss). The applicant anticipates that the wind and waves will push logs onto the proposed gravel beach to achieve the secondary objective, increasing the wetland complex. Because the conditions of the North Shore of Flathead Lake are comparable to those found at the project site, the documented methods for both halting erosion and restoring the North Shore are likely to be a success along the Blackwood shoreline as well.

b. Description of and the Reason for, the Major Variance Being Considered [FCLR Section 5.1(B)(2)(b)(2)]

The applicant is requesting a permit for a major variance because the proposal requires the placement of an amount of fill in a wetland site subject to strong wave action which exceeds permitted dimensions and location. The amount of fill is too large in depth and volume to be permitted under FCLR Section 4.3(F)(2)(h) Fill Standards. The Flathead County Lake and Lakeshore Protection Regulations clearly state that fill shall only be placed at a depth of four (4) to six (6) inches, and at a volume of 1 cubic yard for every 16 lineal feet of lakeshore. The project dimensions specify a depth of approximately 4 feet, resulting in a volume of fill that is almost 60 times greater than that permitted, or 3.6 cubic yards per lineal foot of shoreline. The proposal is also located in a wetland area that receives strong wave action, unique to the North Shore of Flathead Lake. The specific criteria follow:

- Section 4.3(F)(2)(h)(2), Application of rock is not permitted in the following areas: wetlands and sites subject to strong wave action or currents; sites covered predominately by vegetation; or below average low water.
- Section 4.3(F)(2)(h)(5), Maximum fill depth is four to six inches.
- Section 4.3(F)(2)(h)(6), The volume of fill shall not exceed one cubic yard per sixteen lineal feet of lake frontage.

The applicant clearly describes the variances (p.8-10 of the EIS) and identifies the reason the major variance is needed (p.8 of the EIS): halting the loss of property utilizing a method that will also create restorative and ecologically-sound conditions that do not adhere to FCLR Fill Standards. It should be noted that the FCLR Design Standards contain provisions to permit projects that function to stop erosion, as the proposed gravel beach may, although the FCLR will not permit facilities that function solely to increase property.

c. Description of Existing Conditions from [FCLR Section 5.1(B)(2)(b)(3)]

The applicant describes the site's existing conditions, accounting for the erosive processes that characterize the specific location and shape its physical features. The applicant provides examples of the erosive processes and their specific impacts on the project site. The applicant further explains why the proportions of fill the proposal requires are necessary to curb the erosive process and loss of property. For example wave height, an erosive force, is subject to and limited by the existing depth of water at the site. The water at this specific site is three (3) feet deep or 36 inches, and the maximum wave height will not mathematically exceed 70% of that depth (equivalent to 25.2 inches). Therefore the height of the beach required to break waves offshore would need to be at least that high, 25.2 inches, to accomplish the feat. Clearly, the permitted depth of four (4) to six (6) inches would not provide adequate beach height to cause offshore wave breaks. The applicant states that the Blackwood property is also subject to seiches that measure a foot at maximum elevation. In the applicant's words, "these specific sites are exposed to the maximum fetch of the lake and dominant wind directions from both the south and west," which is why the long-term cumulative wave energy is the greatest at the location of the Blackwood property. Another existing condition found along the eroding shoreline that should be reduced if the proposed project is completed, is nutrient suspension which diminishes water quality. The conditions described above contribute to the alleged need for a variance to FCLR. The existing conditions, as described by the applicant, cannot be thwarted while adhering to FCLR Fill Standards as the quantities of fill that are permitted are not proportionate to halt the natural impacts of winds and waves.

d. Description of Anticipated Impacts, related the Policy Criteria in Section 4.1 [FCLR Section 5.1(B)(2)(b)(4)]

While primary motivation behind the proposal is to prevent property loss, its secondary focus and request for variance is related to the restoration of the site's wetland complex. In order to adequately assess the applicant's description of the proposal's anticipated impacts, Policy Criteria 4.1 will be used, which state that, "The proposed action shall not, during either its construction or its utilization: Materially diminish water quality; Materially diminish habitat for fish or wildlife; Interfere with navigation or other lawful recreation; Create a public nuisance; Create a visual impact discordant with natural scenic values," where such values form the predominant landscape elements; and, alter the shoreline characteristics.

1. Materially diminish water quality;

During either its construction or its utilization it is possible for the project to materially diminish water quality and habitat; although construction will occur at low pool and this will be a condition of the permit if approved. As for the utilization of the project, the applicant states that water quality will be improved as nutrient suspension will be reduced (substantial nutrient loading is due to

erosion). The fill material is of a regulated size and will not contain fines, silts, or sands that would easily diminish water quality if washed away. However, should the fill be unpredictably transported from the site by forceful wind or waves, that too, would diminish water quality.

2. Materially diminish habitat for fish or wildlife;

Habitat for fish and wildlife might be impacted due to potential sedimentation; however, it seems unlikely given the success of previous projects. Overall, the proposed project is stated to improve habitat for fish and wildlife as it restores the wetland and provides greater habitat accessibility.

3. Interfere with navigation or other lawful recreation;

Upon consideration of the public's reasonable expectations, the proposed project would not hinder navigation or recreation, as the fill will be placed near shore on private property.

4. Create a public nuisance;

Staff finds that should the fill become dislodged it might limit neighboring property owners recreational access, e.g. swimming, fishing, etc. However, based on the evidence of potential environmental benefits presented by the applicant, the potential adverse impact is outweighed.

5. Create a visual impact discordant with natural scenic values;

The construction and utilization of the proposed action will not likely create a discordant visual impact with scenic values as more than a mile of the nearby shoreline has been transformed utilizing the proposed design specifications, and the before and after photographs appear to contain like features in function and quantity (see Figures 8, 12, 13, 18, & 19 for visual reference of existing features).

6. Alter shoreline characteristics;

The shoreline will obviously be altered because there would be a large amount of fill placed on it. Although, as the applicant states, the function of the shoreline won't be altered because the hydrologic structure of the wetlands and lake will remain.

If past research on neighboring properties on the North Shore is any indication, the proposal will have a net positive environmental impact by enhancing water quality, enriching and increasing habitat for fish and wildlife, and improving navigation and recreation as cited in the EIS.

e. Alternatives to the proposed project, which would not require a major variance from Section 5.1(B)(2)(b)(5)

The applicant demonstrates an understanding of project alternatives that would not be cause for a major variance to FCLR; however, the applicant wishes that the property not only withstand the erosion, but recreate the lost environment. The applicant cites ample support for utilizing the most ecologically-sound method to prevent erosion and thus for a major variance request. The alternatives that the applicant has analyzed in the EIS include the outcomes of no action, the utilization of a concrete seawall coupled with rip rap –a compliant FCLR activity, and designing the gravel beach in conformance with the FCLR Fill Design Standards. The applicant did not however, review rip rap as an option separate from the seawall, which would have been appropriate since the FCLR lists rip rap as the primary erosion control measure (FCLR Section 4.3(E)). Although, rip rap has detrimental effects, the effects are not as significant as those caused by a seawall and the erosion could be controlled. The status quo outcome will not halt property loss because natural conditions responsible for the erosion will remain unmitigated. The utilization of hard-structure erosion control methods will stop property loss at the site because the strength of the materials used in hard-structure designs are effective against erosive forces; however, the applicant cites research that opposes the use of hard-structure erosion control methods because of adverse side-effects to the benthic community and neighboring lands.

f. Any other information that may be required from Section 5.1(B)(2)(b)(6)

The positive environmental impacts of the proposal are frequently referenced in the EIS, and have been vetted and permitted by a host of agencies.

VI. SUMMARY OF FINDINGS

FINDING #1:

Based on the applicant’s description of the proposed project, the reason for major variance permit request, and the description of existing conditions as the basis for the variance, and as reviewed by staff, the proposed major variance permit request will not create a net negative environmental impact because the volume of fill to be placed is proportionate to cease the erosive conditions and is a documented environmentally-sound method based on previously successful attempts.

FINDING #2:

Based on the applicant’s description of anticipated impacts related to the six Policy Criteria in Section 4.1 as the basis for a variance approval, as reviewed by staff, the proposed major variance request will benefit the surrounding environment because it will passively restore the wetland habitat, protect the subject property from erosion in a demonstrated environmentally-sound and tested manner, while simultaneously enhancing water quality.

FINDING #3:

The applicant has demonstrated that the proposed fill, when placed in accordance with the referenced and researched methods, is a desirable alternative to other methods of shoreline protection for the subject property and the unique conditions there, yet it does require a variance to complete.

VII. CONCLUSION

Upon review of this application and the supporting materials, the major variance permit request for the placement of fill to stop erosion and property loss is generally supported as the objective and intended function of the gravel beach proposal are consistent with other permitted erosion control methods found in FCLR, and in conjunction to this general finding, the proposal is supported by much research citing the environmental benefits of this passive wetland restoration. Should the Flathead County Board of Commissioners choose to adopt staff report FLV-14-02 as Findings of Fact and approve the request for major variance permit, the following conditions would ensure compliance with the review criteria and appropriate measures to mitigate impacts:

VII. CONDITIONS

1. The construction and utilization on the subject property shall maintain conformance with the application materials and site plan as submitted and approved by the Board of Commissioners and modified by the conditions below.
2. Changes or modifications to the approved design and use shall not be affected unless specifically approved in writing by the Flathead County Board of Commissioners.
3. At the end of 12 months from the date of authorization of this permit staff will inspect to verify compliance.
4. All work undertaken at or lakeward of the average high water line shall be done when the lake level is at low pool and the construction site is dry [Section 4.2(A)(2)(a)].
5. Mechanized vehicles shall be allowed on the lakeshore only in connection with this project. Should any vehicle slice, gouge, or rut the beach, become stuck or expose clay, silts, and fine sands, said vehicle shall be immediately removed from the Lakeshore Protection Zone and an alternative procedure shall follow [Section 4.2(D)(2)(e)].
6. No vehicle shall come in contact with the lake water [Section 4.2(D)(2)(e)].
7. All construction debris shall be disposed of outside the Lake and Lakeshore Protection Zone in such a manner and in such a location so as to prohibit its reentry into the lake, per Section 4.2(F)(2).
8. Temporary stockpiling of materials is prohibited in the Lakeshore Protection Zone [Section 4.2(C)(2)(b)].

Planner: AW