

**Aerial Videography – Riparian Management Area**  
**Health and Integrity Assessment Scorecard for Lakes 1, 2**  
**August 19, 2003**

Modified by Walker Environmental to include consideration for naturally occurring areas that do not allow plant growth in questions 1 and 3 and removal of question 8.

This scorecard follows the general health and integrity approach described in Scrimgeour and Wicklum (1996). The scorecard, applied to low altitude (< 200 ft) aerial videography, delivers a rapid, “**coarse filter**” assessment of riparian management area **health and ecological function** on individual polygons that can be summarized to describe the health and integrity of the entire lake. This information can be used to direct conservation and management activities at those human actions negatively impacting the health or integrity in the riparian management area.

**Assessment Questions and Scoring.**

1. 85% or more of the polygon area is covered with vegetation of any kind? (Polygon area does not include area covered by water).  
**Yes** \_\_\_\_ (2 points) **No** \_\_\_\_ (0 points) **Nat** \_\_\_\_ (1 point)
2. Cattails and bulrushes are visibly growing in the littoral zone adjacent to the polygon area? (Identifying immature bulrush and cattail stands may be difficult. On some lakes these species do not grow because of site and/or climate conditions. It is important you know this prior to deciding if their absence is natural or human caused).  
**Dense to Medium** \_\_\_\_ (1 point), **Medium to Sparse** \_\_\_\_ (0.5 points), **None** \_\_\_\_ (0 points)
3. Woody plants like willow, birch or poplar cover 15% or more of the polygon area? (In some cases riparian areas do not have the potential for woody plants because of soil chemistry and other factors, i.e., saline and drainage. In some cases woody plants do not meet this threshold because of site and successional reasons).  
**Yes** \_\_\_\_ (1 point) **No** \_\_\_\_ (0 points) **Nat** \_\_\_\_ (.5 point)
4. Within the 15% woody zone, what is the abundance of woody plants? (If the answer to Question 3 is no, this question receives 0 points)  
**Dense to Medium** \_\_\_\_ (1 point) or **Sparse to Medium** \_\_\_\_ (0.5 points)
5. 35% or more of the polygon shows visual signs of human caused removal or alteration of vegetation? (e.g., includes conversion of native vegetation to lawn grass, mowing, grazing, cutting of woody vegetation, etc.).  
**Yes** \_\_\_\_ (0 points) **No** \_\_\_\_ (2 points)

6. 35% or more of the polygon shows visual signs of human caused physical alteration? (e.g., addition or removal of sand or rock, harrowing beaches, retaining walls, boat houses, decks, patios, walking or ATV trails, cattle activity, etc.)

Yes \_\_\_ (0 points) No \_\_\_ (3 points)

7. What picture does most of the polygon look like?

Picture A? \_\_\_ (1 point) Combination of A and B? \_\_\_ (0.5 points) Picture B? \_\_\_ (0 points)



Total possible points = 11.

Actual points (sum from questions above) = \_\_\_\_\_.

**Summary of Question Scores**

If the score is **8.0 or more** it is likely the Riparian Management Area is **healthy**.

If the score is **6.0 to 8.0** it is likely the Riparian Management Area is **moderately impaired**.

If the score is **6 or less** it is likely the Riparian Management Area is **highly impaired**.

# Assessment Results Example

## Buffalo Lake - 24 June 06 - Riparian Health and Integrity Scorecard

Assessment Date: 19 Oct 2006

Using Oct 2006 upgraded version of the 19 Aug 03 scoresheet

Camera Time Code		1	2	3	4	5	6	7	Totals	
Start	End	85% vegetation y=2 n=0 nat=1	Cattails / Bullrush (littoral only) n=0 sm=0.5 md=1	>15% Cover of Woody plants? y=1 n=0 nat=0.5	Abundan ce (within 15% cover of woody plants) n= 0 sm=0.5 md=1	>35% Vegetation Change (cutting, mowing, grazing,etc) y=0 n=2	>35% Surface Change (rock, sand, soil cultivation, ATVs,cattle) y=0 n=3	Like Picture a=1 b=0 ab=0.5	Score	Resulting Health and Integrity Category with < 6= Highly Impaired, 6- 8=Moderately Impaired and >8=Healthy
Tape #1 - 24 June 06										
Start	0:00:38									
0:00:38	0:01:14	y	md	n	n	n	n	ab	8.5	Healthy
0:01:14	0:01:54	y	md	y	sm	n	n	a	10.5	Healthy
0:01:54	0:01:57	y	sm	n	n	y	n	b	5.5	Highly Impaired
0:01:57	0:02:03	y	md	n	n	y	n	ab	6.5	Moderately Impaired
0:02:03	0:02:09	y	md	nat	n	n	n	a	9.5	Healthy
0:02:09	0:02:37	y	md	y	sm	n	n	a	10.5	Healthy
0:02:37	0:02:40	y	sm	y	md	y	n	ab	8.0	Moderately Impaired
0:02:40	0:02:43	y	n	y	md	y	y	ab	4.5	Highly Impaired
0:02:43	0:02:45	y	n	y	md	n	y	a	7.0	Moderately Impaired
0:02:45	0:02:49	y	n	y	md	y	n	ab	7.5	Moderately Impaired