Marine Mammal Monitoring

Marine Mammal Monitoring (M3) Mission

"to promote stewardship of marine mammals, birds and critical habitat by providing a comprehensive monitoring , outreach and education program for recreational and commercial ecotourists in the Trans-Boundary area."

Marine Mammal Monitoring

Marine Mammal Viewing in Trans-Boundary Area

GUIDELINES VS. REGULATIONS

MONITORING VS. ENFORCEMENT

Marine Mammal Monitoring

Marine Mammal Viewing in Trans-Boundary Area

……implementing best practices for management of vessel/killer whale interaction…

Marine Mammal Monitoring

Marine Mammal Viewing in Trans-Boundary Area

PRECAUTIONARY PRINCIPLE:

" *the absence of scientific information shall not be used as a reason for not applying a precautionary approach with conservation and stewardship"* - U.N. resolution

Marine Mammal Monitoring

M3
Marine Mammal Monitoring

Marine Mammal Viewing in Trans-Boundary Area

WHAT IS DISTURBANCE?

"when we interfere with an animal's ability to hunt, feed, communicate, travel, socialize, rest, breed and care for its young"

Marine Mammal Monitoring

Marine Mammal Viewing in Trans-Boundary Area

WHO IS INVOLVED?

- recreational boating
- commercial marine traffic
- aviation
- commercial whalewatching
- shore-based viewing
- researchers

Marine Mammal Monitoring

Marine Mammal Viewing in Trans-Boundary Area

POTENTIAL ISSUES:

- too many boats
- duration of whale watching activity
- proximity to the animal
- speed of approach
- pursuit of the animal
- obstructing the path of the animal
- engine noise
- engine exhaust

Marine Mammal Monitoring

Marine Mammal Viewing in Trans-Boundary Area

MANAGING VESSELS AROUND KILLER WHALES?

- guidelines
- regulations
- monitoring
- enforcement
- temporal, spatial or seasonal restrictions

Marine Mammal Monitoring

Marine Mammal Viewing in Trans-Boundary Area

GUIDELINES

- "Be Whale Wise" endorsed in US and Canada
- WWOANW (industry) guidelines
- zoning
- need to be easily understood
- interpretation varied
- not enforceable

Marine Mammal Monitoring

Marine mammal regulations in USA and Canada

- Canadian and the U.S. regulations prohibit harassment and disturbance of marine mammals
- broad regulations, loosely defined
- few prosecutions
- Regulations currently under review
- marine mammal viewing not addressed
- new regulations under consideration
- potential impacts of Endangered Species Act and Species at Risk Act

Marine Mammal Monitoring

Marine Mammal Viewing in Trans-Boundary Area

PARKS CANADA MM VIEWING REGULATIONS

- implemented 2002
- licensed operators
- endangered species given special consideration
- very limited enforcement
- one prosecution
- no monitoring program

Marine Mammal Monitoring

Marine Mammal Viewing in Trans-Boundary Area

WHAT IS MONITORING?

" to accurately characterise marine mammal viewing activities against existing guidelines, protocols and regulations "

Marine Mammal Monitoring

14K 33898
MARINE MAMMAL MONITORING
Marine Division
M3
Marine Mammal Monitoring

Marine Mammal Viewing in Trans-Boundary Area

MONITORING

- compares vessel/whale interaction against guidelines
- records infractions or non-compliance as "incidents"
- incident reports to industry
- education focus for non commercial vessels
- quality control mechanism

Marine Mammal Monitoring

Marine Mammal Viewing in Trans-Boundary Area

ENFORCEMENT

- responds to regulations
- expensive
- labor intensive
- confrontational by nature
- few prosecutions
- one charge has cost about $70K CAN
- difficult under current regulations

Marine Mammal Monitoring

Marine Mammal Viewing in Trans-Boundary Area

TEMPORAL, SPATIAL & SEASONAL CONSIDERATIONS:

- stewardship areas..W side San Juan Is.
- Active Pass under consideration
- consideration of daily, hourly or seasonal respite periods
- numbers of vessels in viewing zone

Marine Mammal Monitoring

Marine Mammal Monitoring

Marine Mammal Viewing in Trans-Boundary Area

CONCLUSIONS:

- **err on the side of caution**
- **regulations and enforcement are not necessarily a solution**
- **stewardship efforts that involve monitoring are effective actions**
- **international harmonization imperative**
- **industry benefits, industry should directly contribute**

Marine Mammal Monitoring

How to contact us

Marine Mammal Monitoring (M3) Project

Veins of Life Watershed Society
1153 Esquimalt Rd. - Box 36057
Victoria, B.C.
V9A 7J5

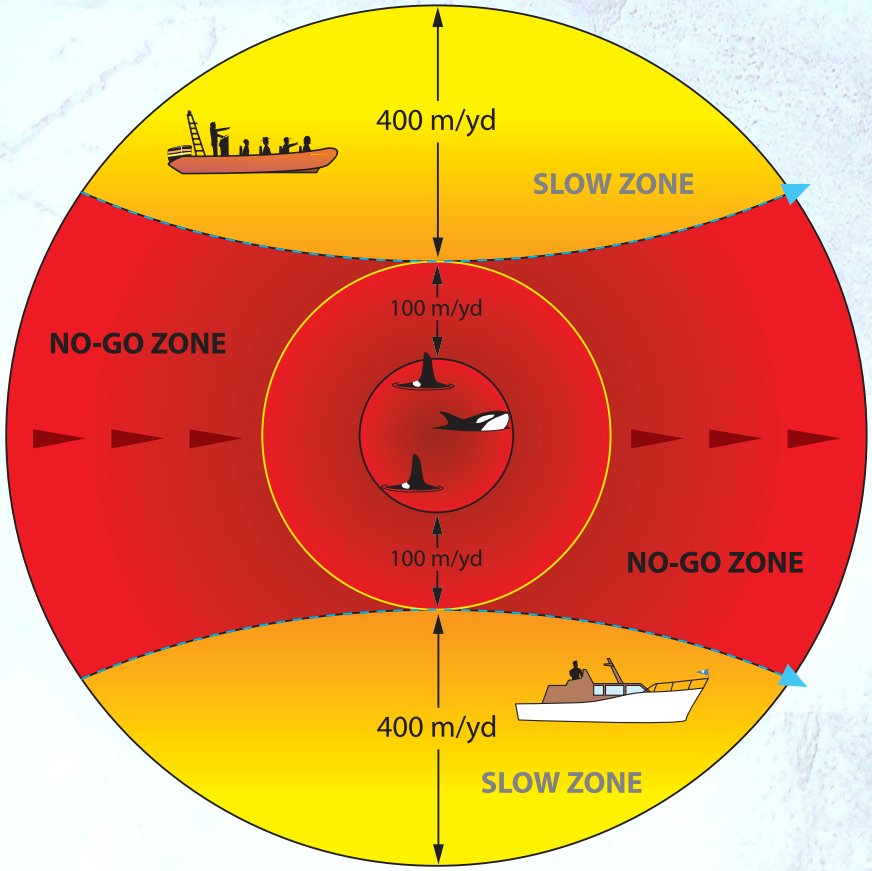
Phone: (250) 383-2086
Cell: (250) 213-8762
Fax: (250) 383-2085

Website: www.salishsea.bc.ca
Email: pakenham@volws.bc.ca

Marine Mammal Monitoring

Raytheon
Pet Friendly
Renton, Wa.
MARINE MAMMAL MONITORING
M3
Marine Mammal Monitoring

Marine mammal viewing diagram



Marine Mammal Monitoring

Threats to marine mammals

- Historical
  - whaling and hunting
  - live captures
- Habitat loss
  - global warming and climate change
  - overfishing
  - urbanization
- Pollution
  - noise (vessel traffic)
  - toxins (PCBs, dioxins, furans)
- Disturbance
  - human/marine mammal interaction

Marine Mammal Monitoring

Marine Mammal Viewing in Trans-Boundary Area

…….moving from perception……

……. towards reality…….

Marine Mammal Monitoring

Marine Mammal Viewing in Trans-Boundary Area

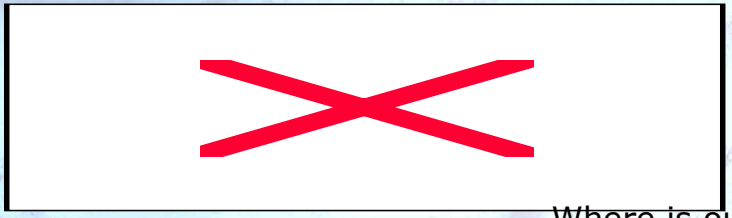
What is perception?

- viewer dependent
  - ecotourists
  - media
  - public
  - ecotourism industry
  - regulators
  - scientists
- views range from “no impact” to “very harmful”
- anecdotal
- mixed messages
- reality

Marine Mammal Monitoring

Marine Mammal Viewing in Trans-Boundary Area

media perspectives.....



CORRESPONDENT'S REPORT

Whale Watching Grows Into a $1 Billion Industry

Where is our marriage certificate?

Aviation firm seeks whale-watching advice

T-C 5 Sept '01

THE VANCOUVER SUN, MONDAY, MAY 28, 2001 A5

Whale watching harms orcas, expert says

Mobs of tourists mean whales never rest, UBC scientist says

MONITOR

TIMES COLONIST • SUNDAY, OCTOBER 21, 2001 • D9

The urban whale struggles to survive

Our whales are dying

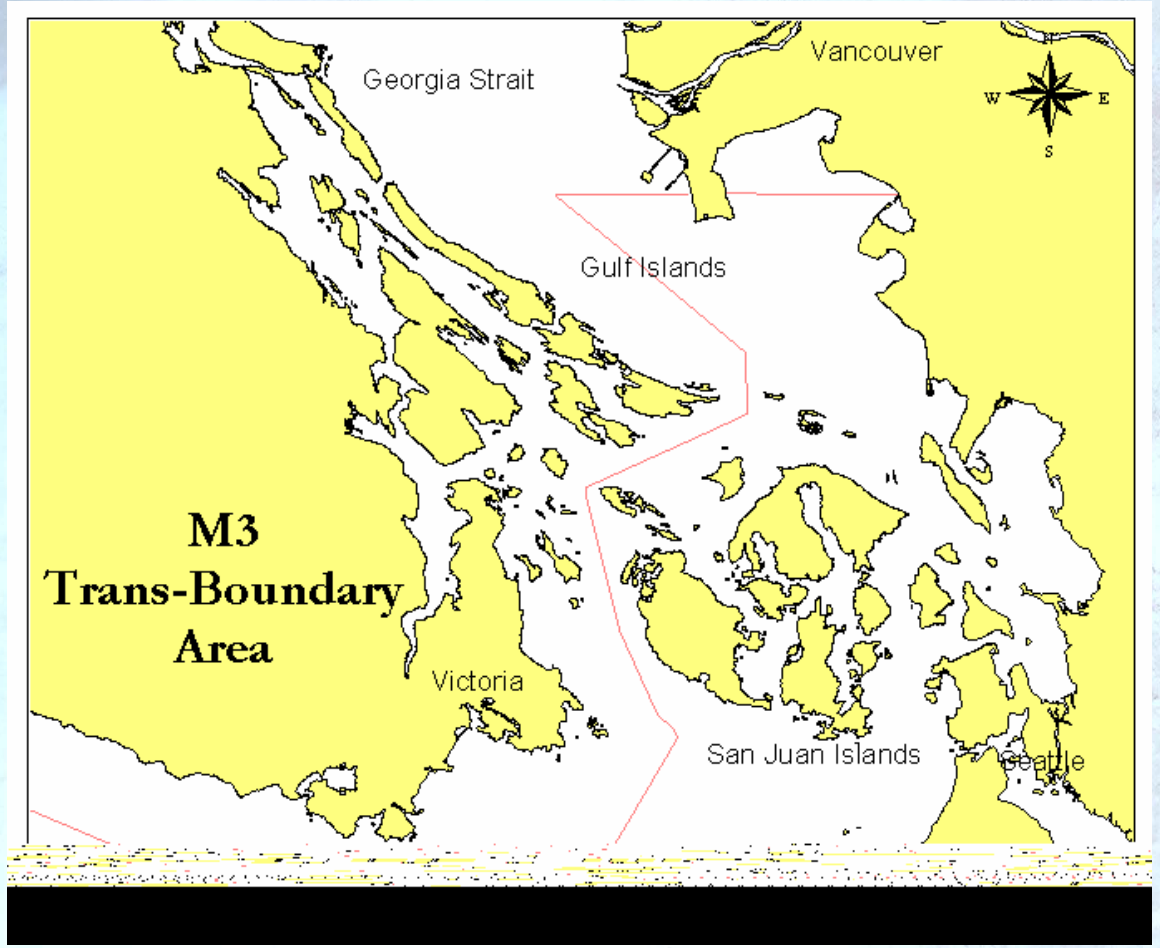
Marine Mammal Monitoring

Marine Mammal Viewing in Trans-Boundary Area

- monitoring
- outreach/education
- stewardship initiative

Marine Mammal Monitoring

Trans-Boundary Area



Southern Vancouver Island and Northwestern Washington state
(Haro Strait, Georgia Strait, Juan de Fuca Strait, Gulf Islands, San Juan Islands)

Marine Mammal Monitoring

Marine Mammal Viewing in Trans-Boundary Area

How is it monitored?

- observational analysis
- incident reporting to those involved
- friendly intervention in some cases
- data collection and interpretation

Marine Mammal Monitoring

M3
Marine Mammal Monitoring

Marine Mammal Viewing in Trans-Boundary Area

Recreational boating

- limited environmental awareness
- 70% of BC population involved in a recreational boating activity each year (Statistics Canada)
- wide range of boating skill/knowledge levels
- 350,000 recreational vessels in BC (sailing vessels, power boats, personal water craft,kayaks and canoes)

Marine Mammal Monitoring

M3
Marine Mammal Monitoring

Marine Mammal Viewing in Trans-Boundary Area

Commercial marine traffic

- limited environmental awareness
- busy traffic lanes
- limited maneuverability
- restricted visibility
- revised traffic management scheme
- opportunistic viewing
- government, research, military and ferries

Marine Mammal Monitoring

SEAPLANE
ADVENTURE TOURS
COOPER AIR
PRINCE of WHALES
M3
Marine Mammal Monitoring

Marine Mammal Viewing in Trans-Boundary Area

Aircraft

- growth in aircraft-based ecotourism
- opportunistic viewing by commercial aviation
- considerable noise and disturbance impacts
- limited recognition of aviation guidelines (1000’ minimum altitude)

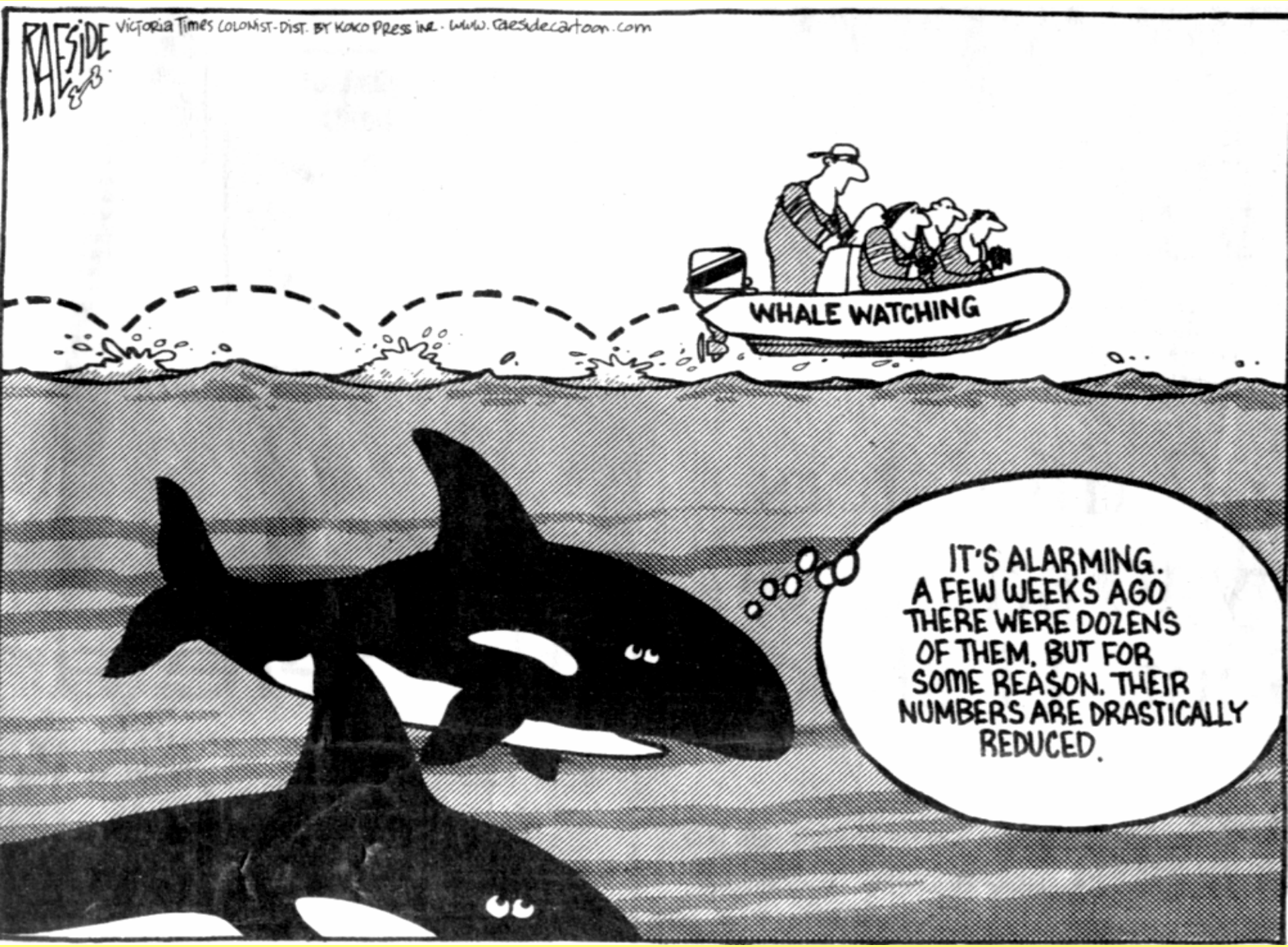
Marine Mammal Monitoring

Marine Mammal Viewing in Trans-Boundary Area

Commercial whalewatching in BC/Wa

- persistent and repetitive activity
- concentrates in important habitats
- industrialization over the past ten years
- increase in trip frequency, duration, vessel size and horsepower of vessels
- increased stresses on marine mammals
- significant contribution to coastal communities
  - socio-economic
  - cultural
  - educational

Marine Mammal Monitoring


RAESIDE
Victoria Times Colonist - Dist. by Koko Press Inc. - www.raesidecartoon.com
WHALE WATCHING
IT'S ALARMING. A FEW WEEKS AGO THERE WERE DOZENS OF THEM, BUT FOR SOME REASON, THEIR NUMBERS ARE DRASTICALLY REDUCED.

Whale Watch Operators Association Northwest (WWOANW)

- established in 1993
- US and Canadian membership
- 38 companies
- representing 71 vessels
- not all whalewatch operators in Trans-Boundary area are members
- voluntary viewing guidelines, internally regulated

Marine Mammal Monitoring

M3
Marine Mammal Monitoring

What is disturbance?

"interference with an animal's ability to hunt, feed, communicate, socialize, rest, breed and care for its young."

Potential issues:

- too many boats
- proximity to the animal
- speed of approach
- pursuit of the animal
- obstructing the path of the animal
- engine noise
- engine exhaust

Marine Mammal Monitoring

International viewing guidelines

- consolidation of some pre-existing guidelines
- harmonization of concise, international guidelines by partner organizations, industry, researchers, and government
- created "Be Whale Wise" brochure
- cooperative international distribution of the brochure underway
- not entirely compatible with industry guidelines
- ongoing consultations with wide range of organizations

Marine Mammal Monitoring

14K 33898
14K 33898
M3
Marine Mammal Monitoring

"Be Whale Wise" pamphlet

- promote a conservation ethic and stewardship message
- significant achievement in international cooperation
- clear and concise articulation of marine mammal viewing guidelines
- issues facing marine mammals
- recognition of partners
- circulation in 2001 of 30,000 brochures in U.S. and Canada
- application and adaptability in other areas
  (i.e. coastal B.C. and Mexico)

M3
Marine Mammal Monitoring

THE GORGE
MARINE MAMMAL MONITORING
M3
Marine Mammal Monitoring

Outreach / Education

- based on guidelines and regulations
- on-water component
- community events, boat shows etc.
- teaching the teachers
- presentations tailored to various groups/agencies
- future educational program in schools
- media promotions
- initiatives with government, transportation and military sectors
- developing volunteers and partners

Marine Mammal Monitoring

Preliminary indications

- M3/Soundwatch presence evokes positive changes in human behaviour around marine mammals
- positive public and media response
- need adaptive monitoring methodology
- applying emerging science regarding viewing impacts
- aviation and marine traffic increasingly involved
- challenges in achieving significant changes in marine mammal viewing behaviour
- cooperation with industry paramount
- extensive partnership potential

M3
Marine Mammal Monitoring

M3 Partners and Sponsors

Veins of Life Watershed Society

Friday Harbor Whale Museum (Soundwatch)

National Oceans and Atmospheric Administration

Pearson College of the Pacific

Vancouver Aquarium Marine Science Centre

Saanich Peninsula Chamber of Commerce

Habitat Stewardship Program for Species at Risk:

a Government of Canada program managed cooperatively by Environment Canada, Fisheries and Oceans Canada, and Parks Canada.