Wainui Beach Management

Open Stakeholder Meeting

5 December 2012

DOCS_n281023

GISBORNE DISTRICT COUNCIL

Purpose

Update stakeholders on progress with Wainui Beach Management Plan

- What's been done to date
- Work in progress
- Where to from here

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Agenda

1. Welcome
2. Apologies
3. Agenda and process for meeting
4. WBMS background & process to-date
5. KSF agreed to-date:
    a. How beach works
    b. Effectiveness of existing infrastructure
    c. Cyclical vs long term erosion
    d. WBMS Timeframes
    e. Planning controls for further investigation
    f. Criteria for assessing options
    g. Options to be explored in detail
6. Where to from here
7. Wrap up

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Meeting Process

- A lot of information to present
- An opportunity after each segment:
  - Questions of clarification?
  - Comment?
  - Discussion?

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WBMS background & process to-date

- Context
- WBMS Purpose
- Planning Structure
- Planning Process

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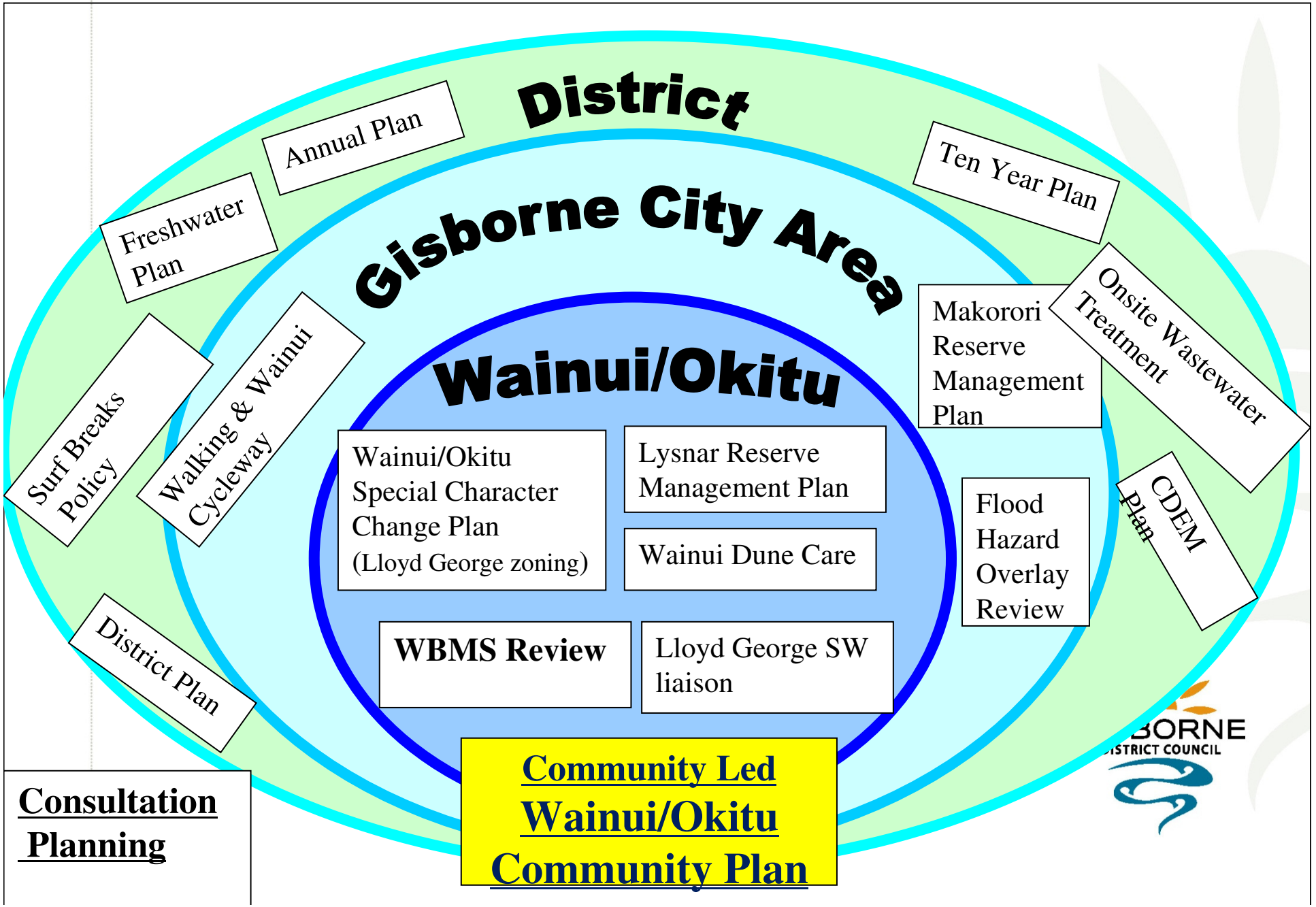
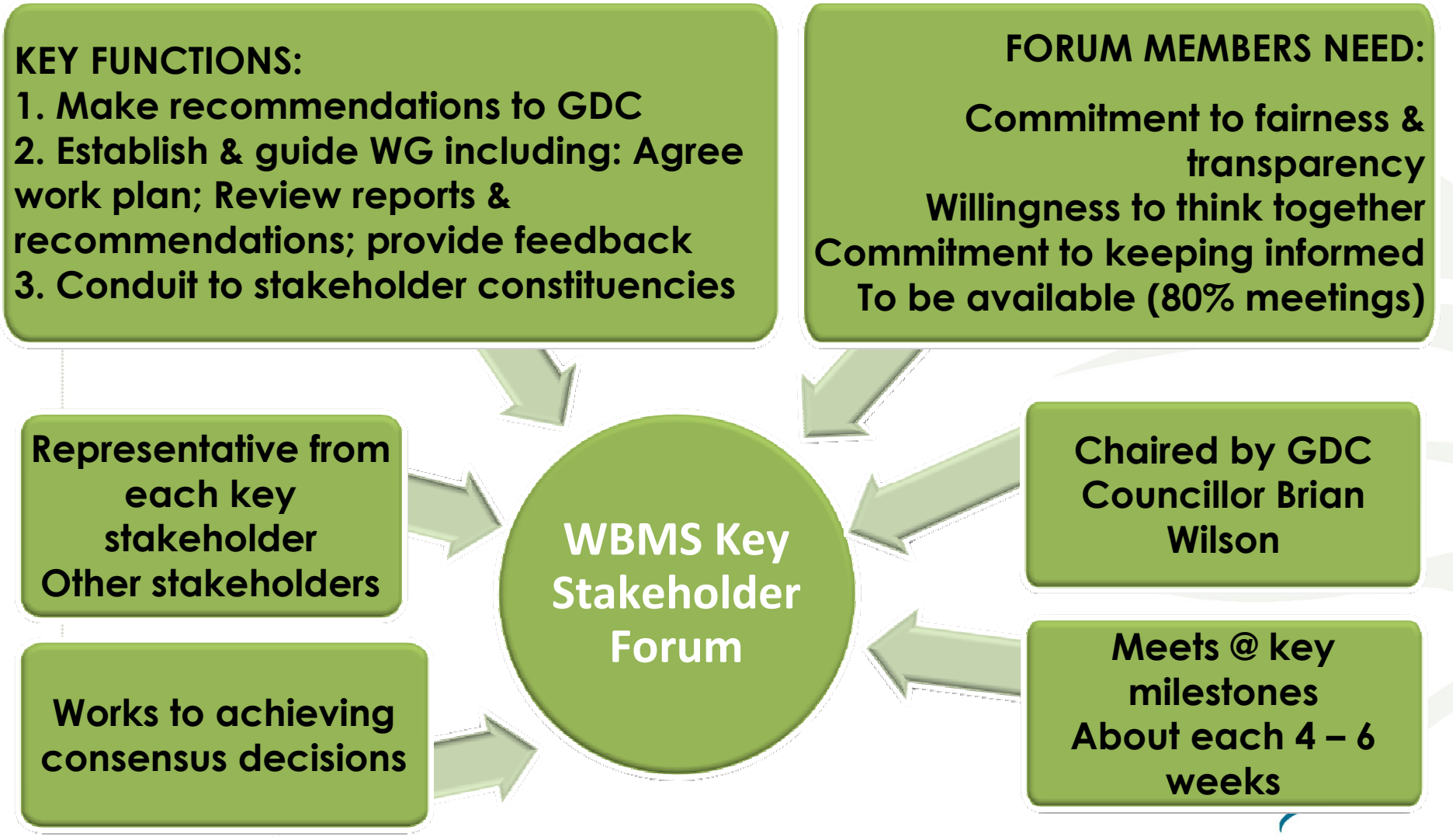

District
Gisborne City Area
Wainui/Okitu
Annual Plan
Freshwater Plan
Ten Year Plan
Onsite Wastewater Treatment
Makorori Reserve Management Plan
Surf Breaks Policy
Walking & Wainui Cycleway
CDEM Plan
Flood Hazard Overlay Review
District Plan
Wainui/Okitu Special Character Change Plan (Lloyd George zoning)
Lysnar Reserve Management Plan
Wainui Dune Care
WBMS Review
Lloyd George SW liaison
Community Led Wainui/Okitu Community Plan
Consultation
Planning

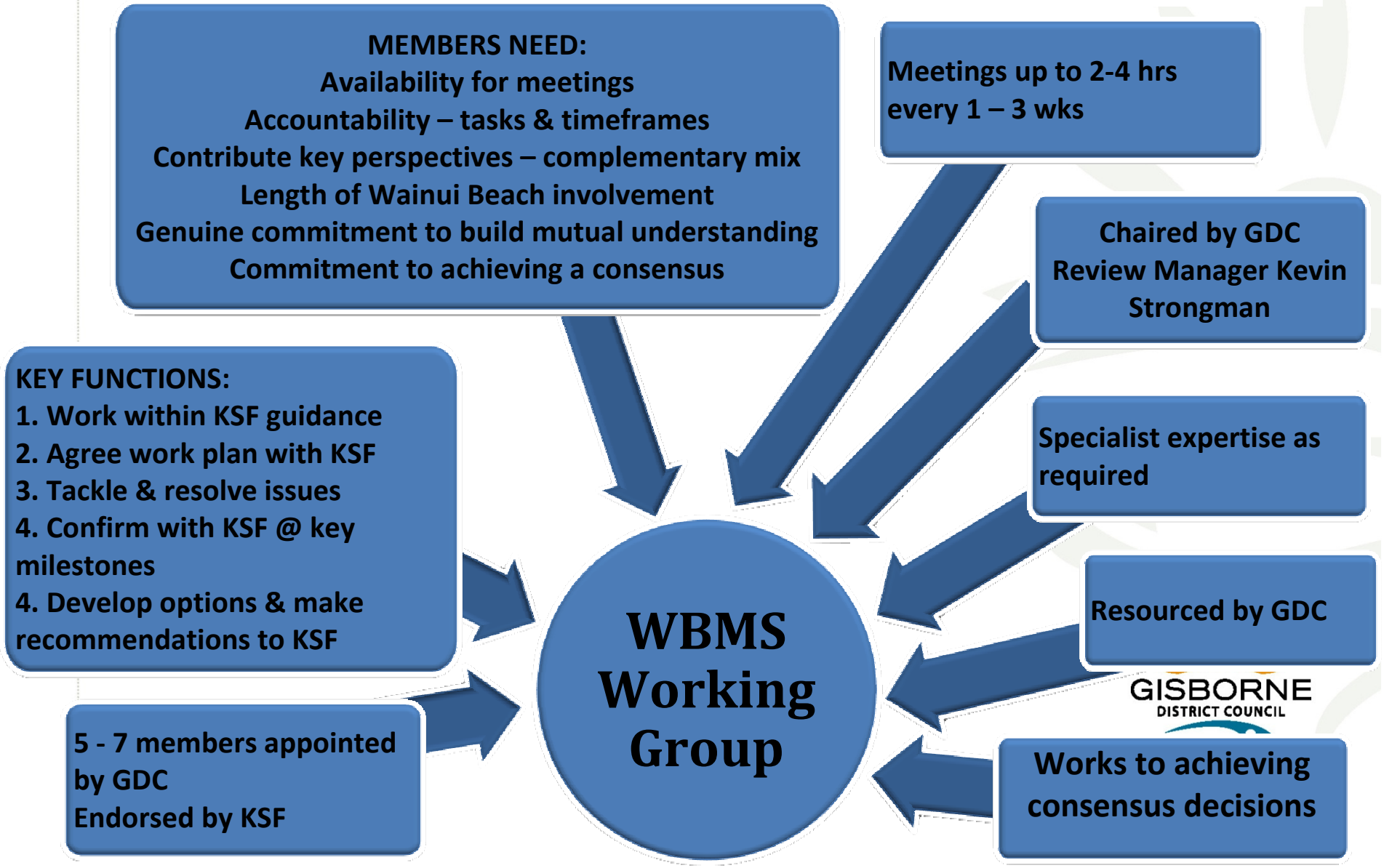
WBMS Purpose

Sustainability	To develop a sustainable strategy that identifies the preferred management of coastal hazards affecting Wainui Beach
Broader Context	We will be taking into consideration the wider economic, environmental, social, recreational and cultural context
Broad Acceptance	Our goal is to achieve a WBMS that has broad acceptance amongst the community because it will provide a framework for future development and decisions related to Wainui Beach

Key Stakeholder Forum



Working Group



Working Group Membership

MEMBERS	PERSPECTIVES COVERED
• Anne Muir • Chris Shaw • Dick Calcott • Ingrid Searancke • John Logan • Kevin Strongman (Chair) • Peter Anderson • Ronnie Amann	• Beachfront ratepayers • Beachfront residents • GDC • Long term Wainui Beach • Life stage – 40s, 50s, 60s, 70+ • Ngati Oneone • Previous WBMS Committee • Surf Lifesaving • Surfing • Tuahine Crescent residents • Wainui Coast Care Group • Wainui residents (Non-beachfront) • Wainui/Okitu R&R Association • Non-Wainui resident

Specialist Advisers

- Engineering - Richard Reinen-Hamill
- Coastal – Dr Amber Dunn
- Presentation to all stakeholders at beginning of WBMS process
- Ongoing advice & support
- GDC staff

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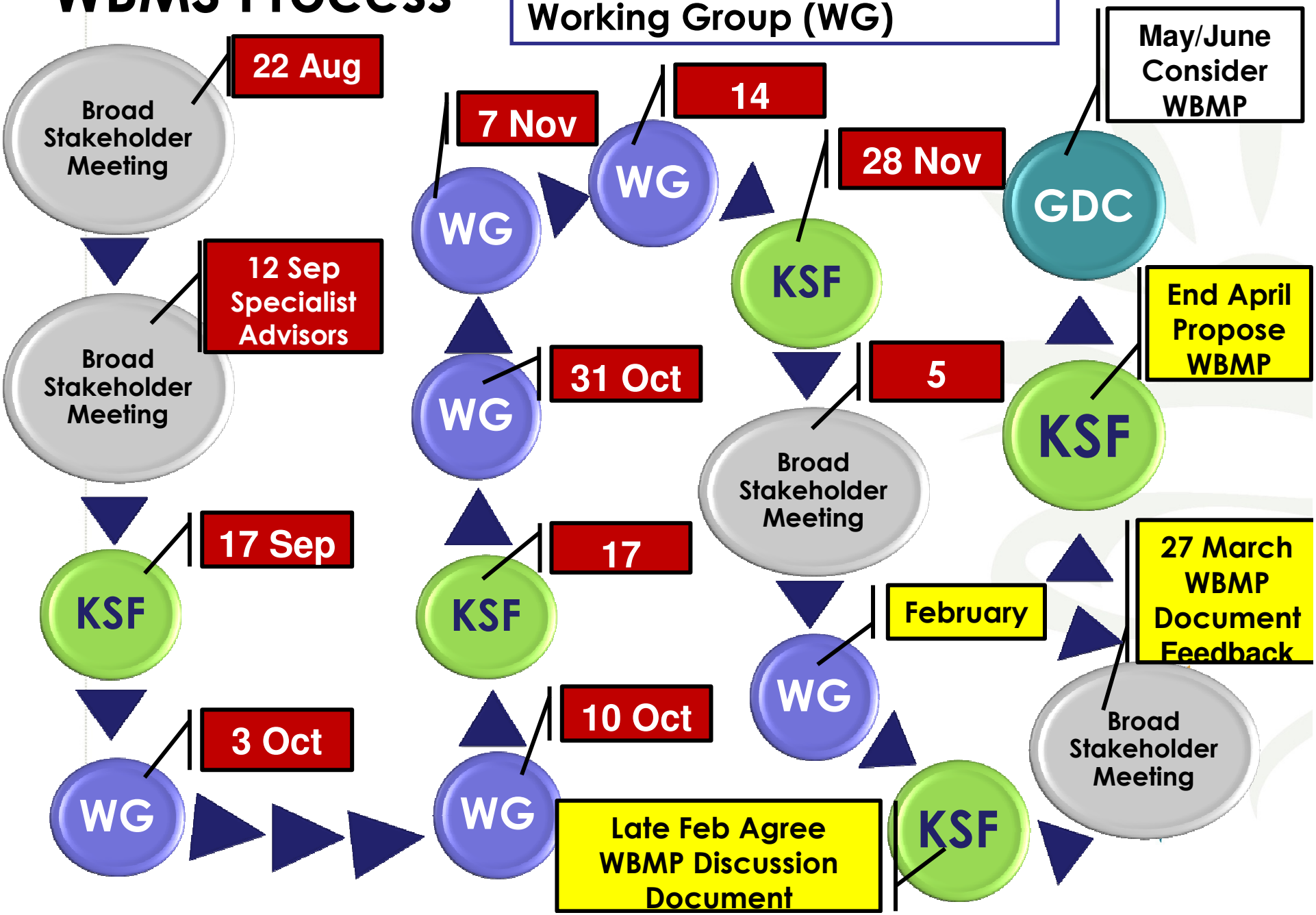
WBMS Process

Key Stakeholder Forum (KSF)
Working Group (WG)



Overview of Roles

Broader Stakeholder Meeting	Key Stakeholder Forum	Working Group	GDC Project Team
Feedback on proposed stakeholder engagement & communication process	Conduit to stakeholder constituencies	Undertakes Review	Manages project; keeps on track
Feedback on KSF's WBMS recommendations	Reviews WG outputs	Tackles & resolve issues	Allocates resources
Ideally, reaches consensus on proposed WBMS recommendations	Reaches consensus on proposed WBMS recs from WG	Seeks feedback	Services WG
		Options and recs to KS Forum	Reviews each stage endorses next stage

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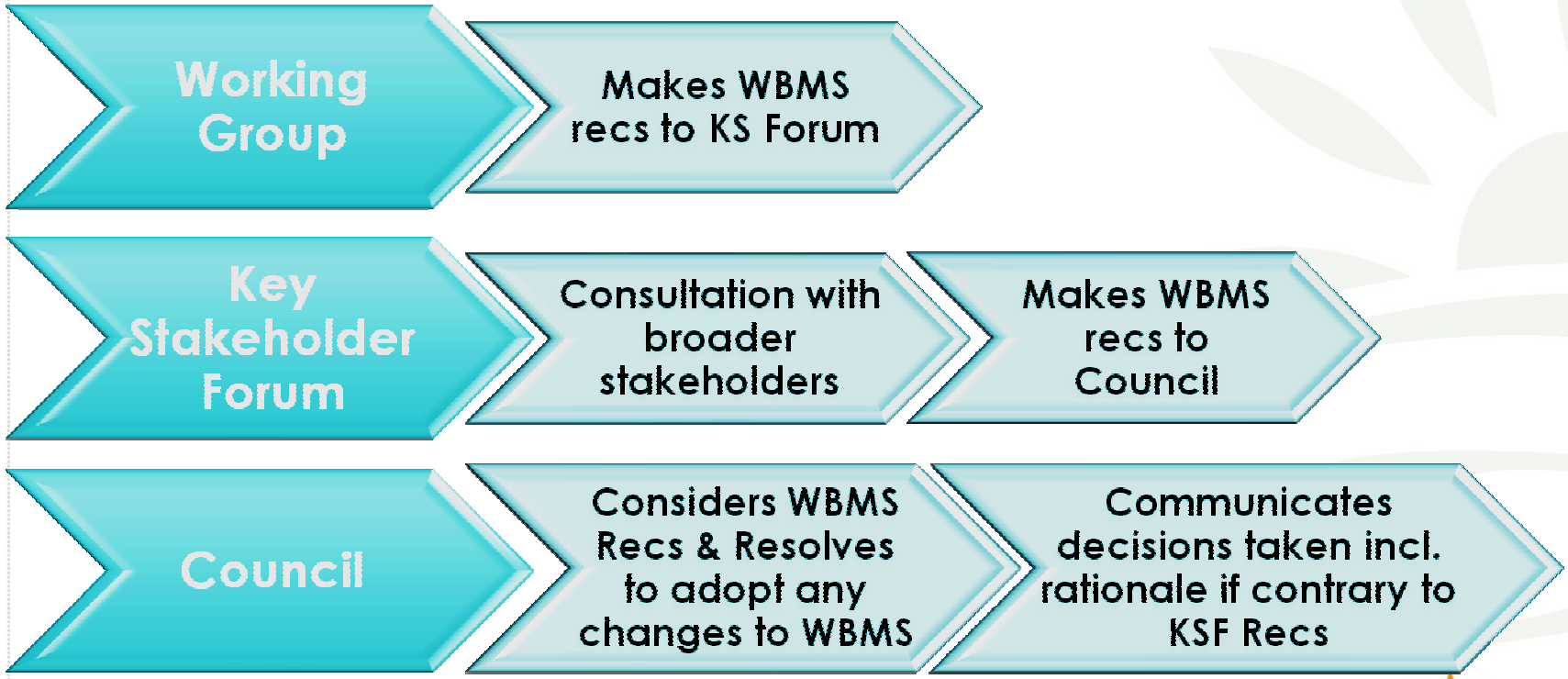
PROCESS END-POINT
WBMS RECOMMENDATIONS & DECISIONS



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Council Process & Timeline

May/June 2013

Council Meeting

- Considers recommendations
- Council decision re amendments to WBMS

June/July 2013

Council

- Communicates Council decision to all stakeholders

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- Questions of clarification?
- Comment?
- Discussion?

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KSF has agreed the following:

- How beach works
- Effectiveness of existing infrastructure
- Cyclical vs long term erosion
- WBMS Timeframes
- Planning controls for further investigation
- Criteria for assessing options
- Options to be explored in detail

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KSF has agreed how ALL BEACHES work

- No parts in nature only WHOLES – beach is only part of a system
- Sand is meant to move & is a vital part of beaches' protective systems
- Moving sand offers natural protection
- Sand dunes act as a store of sand for beach
- Storms, rips, surges will strike & cause erosion

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KSF has agreed how WAINUI BEACH Works

- Beach needs to considered as a whole (part of a broader whole) although geometric variances
- Beach (as modified by man) is thin sand veneer over a variable rocky basement with thin layer of cobbles for some parts of beach
- Beach considered to be mostly closed
- Generally sand movement is "in and out" & along beach
- Cyclic cut & fill of sand occurring along beach from storm events
- Southern end more sand movement than northern end in Southerly storms
- Large storm events have caused significant erosion
- Astronomical (tidal) cycles coincide with significant erosion
- Sea level rise occurring at faster rate than tectonic uplift

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- Questions of clarification?
- Comment?
- Discussion?

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Effectiveness of Existing Infrastructure 1

KSF agreed following re GROYNES:

- Hamanatua Stream training wall works in terms of controlling stream
- Southern groynes 2, 3 & 4 buried since training wall constructed and are ineffective
- Re effectiveness/impact of groyne 27 at Southern end – periodically causes beach scouring to the north locally, lowering the beach sand levels, (eddy effect) and adds to the backshore erosion pressure.

(Note: Expert advice is that groyne 27 is not having an impact on Stockroute area)

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Effectiveness of Existing Infrastructure 2

KSF agreed following re SEAWALLS:

- May help protect properties directly behind them
- Negative in terms of sand on beach - cause scouring

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Effectiveness of Existing Infrastructure 3

KSF agreed following re RIPRAP:

- Helps protect properties directly behind them
- Improved performance (relative to seawall) on coastal processes enhanced by flatter slope and porosity
- Positive (relative to seawall) in terms of sand on beach (does not prevent sand coming back) - minimal scouring
- Take a bigger footprint on the beach (relative to seawall)
- Noted that end of Lloyd George Rd (23) is best example - built to specific Dave Peacock specifications

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Effectiveness of Existing Infrastructure 4

KSF agreed following re GABIONS:

- Work short term – property protection at toe
- Similar characteristics to a seawall
- Because of height are overtopped
- Most of time buried therefore minimal effect on natural sand flow
- Have a limited effect in some storm situations
- Can use small rock (that may be more readily available)

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- Questions of clarification?
- Comment?
- Discussion?

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Cyclical vs Long Term Erosion

KSF view re LONG TERM EROSION:

1.There is cyclical erosion with storm events and long term erosion

2.Predominant effect of waves from the South which, in conjunction with lowering of the reef, impacts on beach rotation

3.But also there is cyclical erosion from NE swell

4.If one holds the control point between beach and cliff it has the potential to slow the long term land retreat but will not prevent long term rotation of the beach

5.Tuaheni point is eroding over time (about 1 – 2 metres per decade landward retreat – ref Gibb 2001)

6.There is long term erosion of Makorori Point that may increase sand movement to the north and loss from the beach system

7.Also noting: When there is a lot of stormwater runoff from land, which permanently erodes property, the beach takes a long time to rebuild.

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- Questions of clarification?
- Comment?
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WBMS TIMEFRAME

KSF agreed following re TIMEFRAMES:

Now: 0 - 20 years

Mid: 20 – 50 years

Long Term: 50 – 100 years

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Planning Controls

KSF agreed following Planning Controls for further investigation:

- Review Hazard Zones
- Consider options to guide decisions on applications for new development in hazard zones e.g.
  - Where any increase in development is & isn't acceptable
  - Where relocatability is acceptable & design assessment processes
- Consider best practice in other districts
- Consider how long term retreat may be supported by Council plans

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- Questions of clarification?
- Comment?
- Discussion?

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